NEW EQUIPMENT DIGEST

A Penton Publication

February, 1957

Volume 22—Number 2

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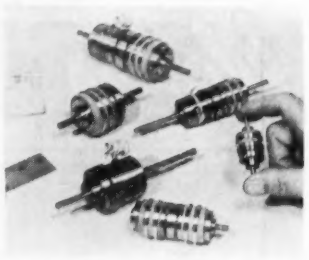
CHECK AND PASS ALONG

✓	NAME	See No.

Use Inquiry Slips—Pages 8 and 108

EQUIPMENT • MATERIALS • PROCESSES • DESIGNS • APPLICATIONS • LITERATURE

ELECTRIC CLUTCHES & BRAKES
small units have no gears or cams



These miniature and small electric clutches and brakes have a flexing diaphragm which pulls armature to center when de-energized. Drive, coupled to clutch, rotates housing while shaft, keyed to armature, is stationary. When energized, clutch-coil effects mechanical coupling with armature. Simple brake unit will stop a mechanism with soft or harsh action, as required. Duplex clutches actuate reverse motions or two stages of a sequence, while combination clutch and brake units have double-acting armature which is alternately actuated by clutch and brake magnets as needed. Sizes range from 7/8 to 3 1/8 in. OD. Units can be supplied to transform 110 v to 6, 12 or 24 v. Made by **Simplatrol Products Corp.**, Worcester, Mass.

▲ For more details circle **NED-1 B7** on enclosed inquiry slip ▲

ABRASIVE CLOTH WHEEL
expands, has replaceable segments

Series of separate, replaceable rubber segments expand to grip the coated abrasive band and form the grinding surface of the Flexcore grinding wheel. Segments, which can be replaced singly or in groups when worn or damaged, are available in a variety of hardnesses. Use in various combinations attains different cutting actions. Complete peripheral contact is made with the coated abrasive band, operable at low speeds. Segments are anchored in the metal core. Wheel diameters are 3, 4, 5 and 6 in. and widths are to specifications. Made by **Nu-Matic Grinders, Inc.**, Dept. A, 8224 Carnegie Ave., Cleveland 3, O.

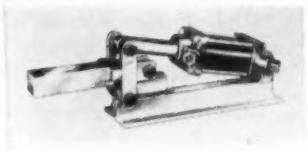
▲ For more details circle **NED-2 B7** on enclosed inquiry slip ▲

SCREWDRIVERS & NUTSETTERS
with precision torque control

A new clutch principle assures precision torque control in the Uni-Tork line of air and electric screwdrivers and nutsetters. Torque is set on outside of clutch attachment, and clutch disengages instantly when preset torque is reached. Cycle is snap-action with no ratcheting, slipping or buzzing of clutch jaws. Torque settings, made in the range from 10 to 100 lb-in., hold indefinitely. Tools are available in 18 models in the No. 2 and 22 air tool line, including eight reversible machines. Clutch attachment is also available in four models of the electric Silver Line series of screwdrivers and nutsetters. Made by **Thor Power Tool Co.**, State & Kane Sts., Aurora, Ill.

▲ For more details circle **NED-3 B7** on enclosed inquiry slip ▲

HEAVY DUTY CLAMPS
air, oil and hand-operated models



Four models with either a solid or channel type bar of cold rolled steel, and with clamping pressures of 200 or 400 lb, are included in line of heavy duty hand clamps. Two air or oil operated models exert the same pressures and have solid bars for automated applications. Air can be supplied from right or left by rotating the clamp cylinder. Failure of air or oil pressure will not release the clamp. All models have replaceable parts, hardened and ground bearing bolts and adjustment through self-locking nuts. Made by **Lapeer Mfg. Co.**, 3058 Davison Rd., Lapeer, Mich.

▲ For more details circle **NED-4 B7** on enclosed inquiry slip ▲

DRY FILM LUBRICANT
for elevated temperature drawing

Successful drawing and forming of titanium, titanium alloys, chromium and stainless steel at 600 to 1400° F is possible with Molykote type 174X, a dry film lubricant. It consists of extremely fine particle size graphite combined with a high temperature binder and dispersed in an aromatic solvent. Application is by spray or brush. Made by **Alpha Molykote Corp.**, 66 Harvard Ave., Stamford, Conn.

▲ For more details circle **NED-5 B7** on enclosed inquiry slip ▲

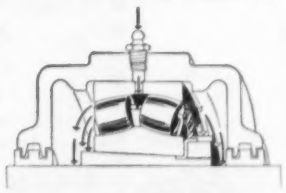
PAPERBOARD PALLETS
licensing offered for various types

One license for the manufacture of expendable paperboard pallets developed by Materials Handling Laboratories, Inc. and corrugated paperboard pallets developed by Addison-Semmes Corp. can now be granted by the new owner of these patents. No royalties will be assessed, but an engineering fee has been established to expand range of uses and areas of application. Recently announced is an all-corrugated board skid for use with platform type trucks. It has a 29 x 8 1/4-in. opening. Further data available from **Signode Steel Strapping Co.**, Dept. NED, 2600 N. Western Ave., Chicago 47, Ill.

▲ For more details circle **NED-6 B7** on enclosed inquiry slip ▲

SPHERICAL ROLLER BEARING
features improved lubrication

Design improvement of type C spherical roller bearings assures more efficient center, instead of side, lubrication of the bearing. This is accomplished by a groove machined around bearing's outer ring and equally spaced holes drilled in the ring. Lubricant, introduced through a fitting in housing cap, moves along groove and through holes directly to center of bearing. Since flow of lubricant is from center to sides, old lubricant as well as abrasive dust and dirt are flushed away. New design is offered in bearings of 140-mm OD and larger. Made by **SKF Industries, Inc.**, Dept. NED, Front St. & Erie Ave., Philadelphia 32, Pa.



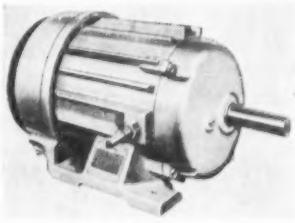
▲ For more details circle **NED-7 B7** on enclosed inquiry slip ▲

CENTRIFUGAL ROOF VENTILATOR
features low noise level in institutional or industrial use

Quiet operation of this centrifugal roof ventilator make it suitable for institutional or industrial uses where low noise levels must be maintained. Built of 16-gage or heavier steel, unit has resilient mounting of all moving parts. Dynamically balanced, nonoverloading, backward curved wheel is taper-locked to shaft. Wheel cone closely fits true spun venturi inlet to assure quiet air movement. Other advantages include tilt-type anchored hood, air movement selection by use of speed-changing belt drive and heavy duty shaft supported by self-aligning ball bearing pillow blocks. Bird screens are standard. Made by **Peerless Electric Co.**, Fan & Blower Div., 1401 W. Market St., Warren, O.

▲ For more details circle **NED-8 B7** on enclosed inquiry slip ▲

ENCLOSED FAN-COOLED MOTOR
is self-cleaning for textile mill use



This totally enclosed fan-cooled Clean-Flo motor is self-cleaning for use in textile mills. Cooling air, driven by high velocity motor ventilating fan, keeps motor free of lint, a cause of possible burnout. One end bracket and housing are combined to provide a single, streamlined, lint free enclosure. Lint-collecting obstructions are eliminated in the smooth cast design. Versatile mounting allows motors to be built with shaft brought out through the fan end as an alternate construction. Fans are built to NEMA dimensions by **Louis Allis Co.**, 428 E. Stewart St., Milwaukee 7, Wis.

▲ For more details circle **NED-9 B7** on enclosed inquiry slip ▲

ROTATING SHAFT SEAL
has Buna-N and brass parts

Self-contained BA12A-10 seal has a filled carbon porosity-free face capable of withstanding high face loading and heat. Compact unit can be used on any rotating shaft to seal any liquids that will not attack its Buna-N flexible parts or brass metal parts. Applications include jet water and oil pumps, reduction units and appliances. Integral roll bellows allows considerable travel and a brass metal shell of two-piece design imparts stability and strength. Seal will operate against pressures up to 100 psi and is available for 5/8 and 3/4-in. shafts with operating limitation of 212° F and shaft speeds up to 1000 fpm. Made by **Garlock Packing Co.**, Dept. NED, 400 Main St., Palmyra, N. Y.

▲ For more details circle **NED-10 B7** on enclosed inquiry slip ▲

Standard Zagar Gearless Drillheads

DRILL ANY NUMBER OF HOLES IN ANY PATTERN

Drill a maximum number of holes in one pass—in any material. Holes can be as close as twice drill diameter. Zagar gearless drillheads are built as a complete unit or may be adapted to any standard drill press. Send us your part drawing and we will submit our quotation

Write for Manual N-2

ZAGAR INC., 23880 Lakeland Blvd., Cleveland 23, O.

Zagar TOOLS FOR INDUSTRY and SPECIAL MACHINERY

For more details circle NED-11 B7 on enclosed inquiry slip

The ALL NEW BEAVER Speed-O-Matic

PORTABLE PIPE AND BOLT MACHINE

- 50% more speed and power from faster, all new motor! Motor and switch fully protected.
- New "CLEAR-VU," self-centering wheel and roller cut-off; die heads with high-speed steel dies; and reamer, all pivot mounted! Ideal for "make-up."
- Quick-acting Power Grip Wrenchless Chuck—forward or reverse!
- Threads ⅛" to 2" pipe (up to 12" with drive shaft) ¼" to 2" bolts.
- Instant and accurate easy-setting spool-type pipe support eliminates double chucking.
- Lubricated for life!
- Oiling tube directs oil right to threading dies! Shuts off automatically.
- Lathe-type thread length indicator.

Can't tell it all here! Send for New Beaver Quick Reference Catalog! Get the latest facts on ALL new Beaver machines!

BEAVER PIPE TOOLS INC. 373-500 Dana Ave. WARREN, OHIO

For more details circle NED-12 B7 on enclosed inquiry slip

A Bonus in Time

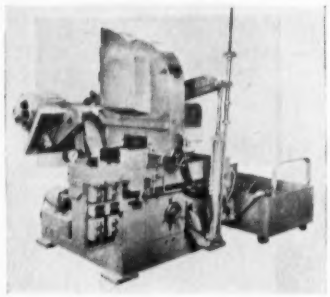
"Everyone's in a hurry these days. Everyone feels he hasn't the time to read all the things he ought to read. This is especially true of engineers, purchasing agents and industrial executives of all types and levels." So says the booklet, "Why Not Just Tell Them?", prepared by the editors of *Instrumentation*, published by Minneapolis-Honeywell Regulator Co.

This excellent guide for technical writers stresses the need for simple, direct, clear, concise English in telling the story of any product, process or procedure. It further points out that writers "have to capture the interest of these busy men at the very beginning, and hold this interest by telling a story clearly and concisely, without wandering or indulging in unnecessary editorial observations."

This informative guidebook closely echoes our philosophy in editing NEW EQUIPMENT DIGEST. We will continue to "boil down" the facts for you busy readers. We will tell what a product is, what it's for, available sizes or capacities, and where to buy it. Descriptions will, as always, be written in concise, easy-to-read form to save time and to keep you fully informed of "what's new for industry".

A. N. Gregg
EDITOR

WET ABRASIVE CUTTER
oscillating machine cuts large sizes



Equipped with a 26-in. diameter Allison abrasive cutting wheel, the model 481 oscillating wet abrasive cutting machine will cut practically any metal within its capacity of 8-in. square solids. Bar stock, tubing and other ferrous and nonferrous metal shapes, including corrosion resisting, hardened and annealed steels, can be cut. Wheel feed and work clamps are hydraulically operated and work bar is hand fed. Additional features are welded steel main bed, self-draining coolant collector, dynamically balanced forge steel spindle, motor pulley bracket with self-aligning roller bearings and oscillating unit driven by a 1-hp gearhead motor. Made by **American Chain & Cable Co.,** Campbell Machine Div., Dept. NED, 929 Connecticut Ave., Bridgeport 2, Conn.

For more details circle NED-13 B7 on enclosed inquiry slip

IT'S LIGHT!

Weighs Only 11 Ounces

BROAD VISION DUST and SPRAY HOOD

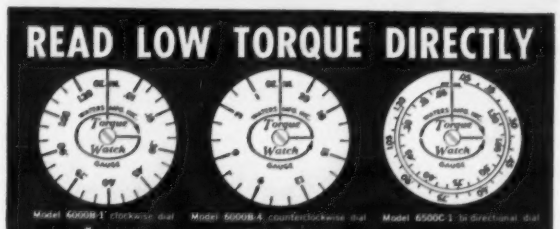
Patent No. 2537265

- Protection from dust and spray. Lighter-cooler-unobstructed vision in all directions. No interference with work to be performed. Used to advantage on many maintenance and production operations.
- WRITE FOR BULLETIN NO. 42

IPCO Safety Equipment for all Industries
INDUSTRIAL PRODUCTS COMPANY
2807 N. FOURTH STREET • PHILADELPHIA 33, PA.

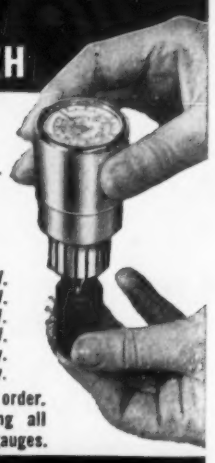
For more details circle NED-14 B7 on enclosed inquiry slip

READ LOW TORQUE DIRECTLY



Model 6000B-1 clockwise dial — Model 6000B-4 counterclockwise dial — Model 6500C-1 bidirectional dial

on large watch-face TORQUE WATCH



Features

Easy-reading dial .....300° linear scale.
Compact .....1⅝" dia., 3-7/16" long.
Accurate ±5% std., ± 1% special order.
Light weight .....only seven ounces.
Unbreakable crystal and face.
Chucks .....¼" or ½" capacity.

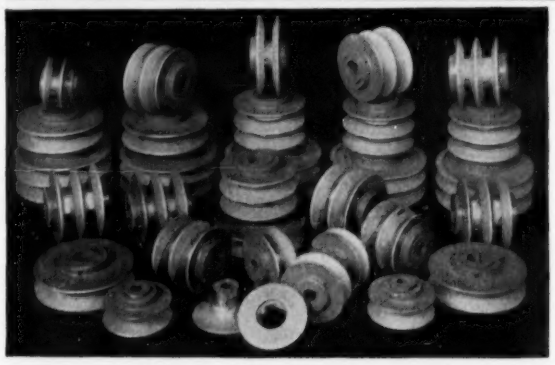
Six Models:

6000B-1 ..... .01 to 1.2 oz. in. CW.
6000B-2 ..... 1.0 to 20 oz. in. CW.
6000B-3 ..... .01 to 1.2 oz. in. CCW.
6000B-4 ..... 1.0 to 20 oz. in. CCW.
6500C-1 .. .05 to 1.2 oz. in. Two-way.
6500C-2 .. 1.0 to 20 oz. in. Two-way.

Additional ranges available on special order. Write today for data sheet describing all Torque-Watch gauges.

Waters MANUFACTURING, inc.
APPLICATION ENGINEERING OFFICES IN PRINCIPAL CITIES
Wayland, Massachusetts
P. O. Box 368, So. Sudbury, Mass.
MFG. INC.

For more details circle NED-15 B7 on enclosed inquiry slip



BROWNING VARIABLE PITCH SHEAVES

Browning offers the most complete line of FHP sheaves, including 108 variable pitch sizes and types, single and double groove. All are accurately balanced, true running, easily adjusted. With fixed bore or the same *malleable* split taper bushing used in Browning sprockets, couplings, paper pulleys, and other sheaves. Made by experts in power transmission since 1886—Browning Manufacturing Company, Maysville, Kentucky.

Ask your Browning distributor or write us for Catalog V147.

Browning POWER TRANSMISSION EQUIPMENT

For more details circle NED-16 B7 on enclosed inquiry slip

NOW . . . **high efficiency**

Filters, Regulators, and Lubricators for Air Supply to Pneumatic Equipment

with the NEW WATTS **high efficiency** LINE

WATTS high efficiency FILTER

New TORNADO ACTION . . . sets up centrifugal force which spirals dirt and moisture downward into "quiet zone."

New ASPIRATOR ACTION . . . gives instant compensation for fluctuating pressure demands.

WATTS high efficiency REGULATOR

WATTS high efficiency LUBRICATOR

New BY-PASS PICKUP . . . makes possible high velocity venturi section which vaporizes virtually 100% of the metered oil.

Complete range of Sizes: ¼", ⅜", ½"

BOWLS CAN BE REMOVED IN 30 SECONDS

WATTS REGULATOR COMPANY SINCE 1875
20 EMBANKMENT ROAD LAWRENCE, MASSACHUSETTS

Write for complete information

For more details circle NED-17 B7 on enclosed inquiry slip

NEW! DISCOVERY!
SAVES PLUMBING BILLS

★CLEANS INSTANTLY

CHICAGO — Feb. 2nd—Factories, Machine Shops, Offices including Home Owners are constantly having trouble with clogged-up pipes which proves expensive in Costly Plumbing Bills—

But now—using Water Impact and Air Pressure, here is a new unit called the **Plumber's Flushing Gun**, which cleans all lines up to 100 ft. It will open any number of bends in pipe. Yet anyone can operate this new gun, which triggers easily.

TOILETS, URINALS, SINKS, and FLOOR DRAINS clogged with paper, grease, rags, sand, and other debris can be cleared with one or more shots from the gun, **saving the owner, the Gun's price the first time it is used.** This new Flushing Gun may be used on any ½ to 6 inch waste pipe including Sink Drains, Floor Drains, Hot Water Pipes, Drinking Fountains, Septic Tanks, and Urinals. Obstructions melt away INSTANTLY when struck by the hammer like blow of this new unit.

AMAZINGLY EFFECTIVE

Hose attachment feeds water thru gun while air is released causing chain reaction

This new Plumber's Flushing Gun is offered on a 30 Day Free Trial to prove its value. **BUT MOST IMPORTANT IS THIS**—What is this Tool worth to your Factory, Building, Machine Shop or in your own Home in **Costly Plumbing Bills Saved.** For your own good—Fill coupon right now—No agent will call—Obey that urge, mail now or write postcard. (Chicago Phone Kildare 5-1702)

MILLER SEWER EQUIPMENT, INC. 4638 N. Central Ave., Chicago 30, Ill.
Please send FREE BOOKLET on Flushing Gun, I am not obligated.

NAME
FIRM
STREET CITY STATE

▲ For more details circle **NED-18 B7** on enclosed inquiry slip ▲

ONE DRAWING IN THOUSANDS—

located in seconds —with FILMSORT!

A LARGE Eastern designer and manufacturer of machine tools is saving space, time and personnel through unitizing its file of 400,000 drawings in Filmsort Aperture cards.

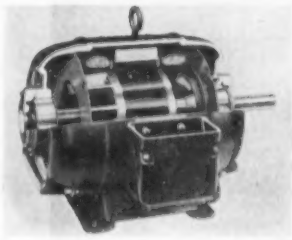
These drawings, indexed for frequent reference in 3 x 5 cards, are simply filed and easily accessible. The rapidly expanding company adds to its drawing file at the rate of 30,000 annually . . . yet to date, one clerk using the Filmsort system handles all filing, referrals and enlargement prints in connection with the drawing file.

The adaptation of Filmsort to the engineering drawing field represents one of the largest potentials for this system of unitized microfilm, as it makes possible mechanized methods for handling, sorting and reproduction of filmed drawings. Yet this is but one of many applications for this modern record keeping system. For single or multiple document files—land title records, personnel files, hospital case histories, research reports—Filmsort provides the factors of versatile card filing systems, mechanical sorting and reproduction of microfilmed records. Filmsort makes microfilm a practical tool for active daily use.

FILMSORT®
FILMSORT DIVISION
DEXTER FOLDER COMPANY
A Division of Miehle Printing Press and Mfg. Co.
Pearl River, New York

▲ For more details circle **NED-19 B7** on enclosed inquiry slip ▲

ELECTRIC MOTORS
rerated to new NEMA requirements



Straight-through dual-sweep ventilation eliminates "hot spots" in series 254U electric motors, rerated to conform to new NEMA requirements. Dielectric qualities of Mylar are combined with cushioning effect of rag paper backing in slot cell insulation. Removable cover plate on each end permits bearing inspection. Lead numbers are permanently impregnated into the insulation. Made by **Robbins & Myers, Inc.,** 1300 Lagonda Ave., Springfield 99, O.

▲ For more details circle **NED-20 B7** on enclosed inquiry slip ▲

LIMITED ACCESS SWITCH
actuated by screwdriver

Subminiature model 1RA1 single-pole double-throw switch, designed for use in limited access areas, is actuated by a screwdriver. A slotted actuator head with 90-degree rotation gives visual indication of switch position. High temperature and long life versions, and those with special terminals, are available for one-hole mounting in panels up to 3/32-in. thick. Types with extra-long actuator shafts, either slotted for screwdrivers or plain for knobs, and knurled or splined actuator shafts for hand operation are planned. UL-listed switch is rated 5 amp, 125 or 250 v ac, or 3 amp inductive at 30 v dc. Made by **Minneapolis-Honeywell Regulator Co.,** Micro Switch Div., 205 S. Chicago Ave., Freeport, Ill.

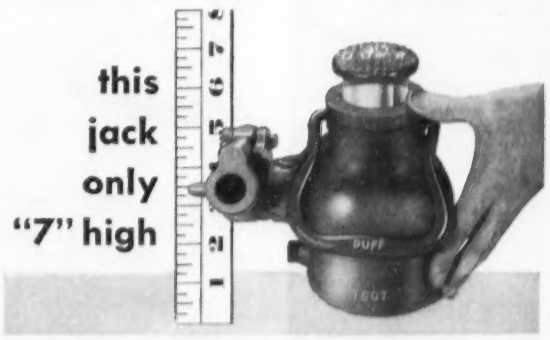
▲ For more details circle **NED-21 B7** on enclosed inquiry slip ▲

ROLLER MARKER
has self-inking system

A self-inking system consists of hollow ink-feed roller with cylindrical absorbent pad in the Handy Marker for stencilling, hand marking, dating, coding and addressing. Inking roller is spring-held to printing roller for even coverage. Ink reservoir is filled from time to time with glycerine-base ink that will not clog or cake, and requires no clean-up. Marker uses easily changed logotypes, plates or type. It has cast aluminum frame and ball-bearing equipped rollers. Made by **Industrial Marking Equipment Co.,** Dept. NED, 454 Baltic St., Brooklyn 17, N. Y.

▲ For more details circle **NED-22 B7** on enclosed inquiry slip ▲

this jack only "7" high



This "Shorty" jack (No. 1507) lifts 15 tons 2½ inches yet is only 7" high.

... will raise 15 tons

It has no fluids to leak, no cup leathers to wear out, no air or vapor lock—can be used sidewise, or upside down. It's a precision engineered, ball bearing screw jack with fully enclosed one piece malleable housing, seldom needs lubrication or servicing. Thousands of these easy to operate jacks are saving time and money wherever powerful lifting is required under low set loads. Ask your recognized distributor or write for bulletin AD-12-N, Duff-Norton Co., P.O. Box 1889, Pittsburgh 30, Pa.

DUFF-NORTON JACKS
"Giving Industry a Lift Since 1883"

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REPUBLIC
VALVES
INDUSTRIAL • CHEMICAL • AIRCRAFT

NEEDLE AND GLOBE TYPES
WITH J.I.C. AND AN STANDARD TUBE ENDS

High pressure needle and globe valves by Republic have forged bodies for super duty service—brass, steel, aluminum alloy, or stainless steel. Exclusive design features. Pipe, or AN or J.I.C. tube ends, or combinations, sizes ⅛" to 2". Operating range up to 5,000 psi, −65° to 350°F.

Manufacturers also of high quality low and hy-pressure check valves, relief, 2, 3, and 4-way plug valves, and special valves to specifications.

Write for complete new catalog No. 654A. Distributors in principal cities coast to coast.

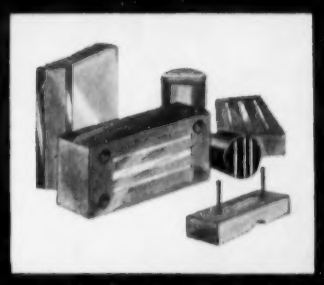
OFFSET GLOBE VALVE

191

RM REPUBLIC MANUFACTURING CO.
15655 BROOKPARK ROAD • CLEVELAND 11, OHIO

▲ For more details circle **NED-24 B7** on enclosed inquiry slip ▲

STORCH *CERAMIC*
PERMANENT MAGNET ASSEMBLIES
HOLDING POWER from ½ OZ. to HUNDREDS of POUNDS AVAILABLE



Fully Insulated for Installation in Steel Holders.

Magnetic Strength, Sizes & Shapes Built & Designed to Meet Your Requirements.

Ideally suited for holding parts in:
1. Spot Welders
2. Assembly Fixtures
3. Plating Racks
4. Paint Shields
5. Automation Machinery
6. Special Tools and Dies

INCREASES PRODUCTION — EASILY TOOLED — AVAILABLE IN ALL SHAPES AND SIZES

Write for new literature:

STORCH PRODUCTS CO., INC.
9232 GREENFIELD DETROIT 28, MICH.

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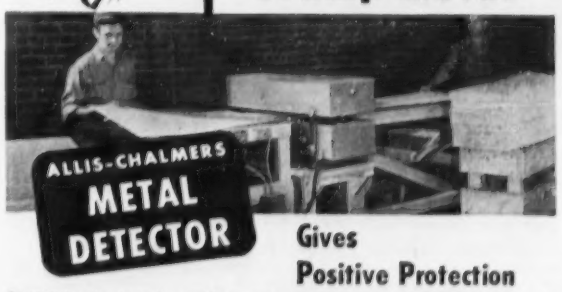
Mr. Hi Frequency, the Electronic

"policeman" Nabs Tramp Metal



Gives Positive Protection

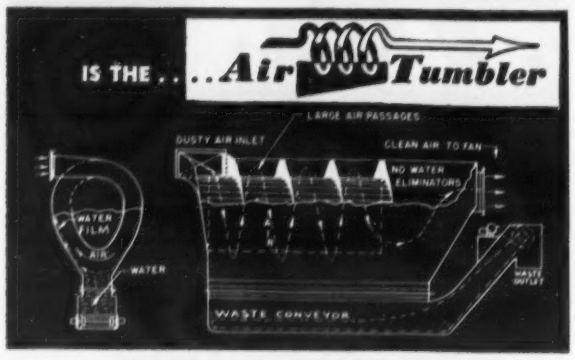
THIS electronic policeman on your production beat always protects against trouble-causing, quality-robbing tramp metal. Magnetic or non-magnetic particles, no matter how deeply embedded, cannot get past the unfailing eye of the metal detector without triggering the warning or reject mechanism.

The Allis-Chalmers metal detector is economical to operate and is easily installed in any production set-up. For complete information, contact your nearby A-C office or write Allis-Chalmers, Industrial Equipment Division, Milwaukee 1, Wis. Ask for Bulletin 15B7217B.

ALLIS-CHALMERS A-C
A-5286

▲ For more details circle **NED-26 B7** on enclosed inquiry slip ▲

The MASTER of DUST in INDUSTRY



HIGH EFFICIENCY WITH LOW WATER EVAPORATION

Write For Bulletin No. 551

DUST SUPPRESSION & ENGINEERING CO.
P. O. BOX 67 • LAKE ORION, MICHIGAN

For more details circle NED-27 B7 on enclosed inquiry slip

Now! Make 90° bends in 3" pipe in one pass

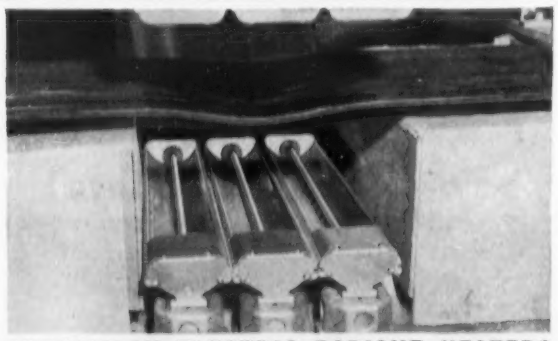
It's Easy — with the New BLACKHAWK FEATHERWEIGHT hydraulic pipe bender!

Now you can make factory-like bends with ease using BLACKHAWK's super-portable 103-pound ALUMINUM BENDER. Features easy-on easy-off Top Plate — "Optik-Angle" bend gauge — 13-inch stroke ram. Users report Blackhawks with electric-powered hydraulic pump pay for themselves in only 35 bends — save up to 75% over cost of manufactured ells. See your supply house now for this Blackhawk featherweight and for other Porto-Power kits to bend ½" to 2" thin wall conduit and 1" to 4" rigid pipe. Only 3 quick settings needed for 3½ and 4" bends!

BLACKHAWK®

BLACKHAWK MFG. CO., Dept. P-1427, Milwaukee 46, Wis.

For more details circle NED-28 B7 on enclosed inquiry slip



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provide uniform, high intensity *far*-infrared heat . . . infinitely variable up to 700°F.

You get these advantages:

High intensity, "color blind" radiation in longer wave lengths . . . which are absorbed with almost equal speed by all colors, textures and surfaces.

Infinitely variable "dialed heat" . . . adjustable from zero to 100% range . . . varies the heat output to match conveyor speeds, work sizes and humidity.

Space saving, non-breakable, all metal units.

Easily and economically installed, operated and maintained.

For these uses:

Heating . . . baking . . . drying . . . curing . . . pre-heating . . . dehydrating . . . degreasing

Let the Chromalox Sales-Engineering staff solve your heating problems . . . electrically.

Write today for your copy of Bulletin CS-604

. . . for information on how Chromalox Electric Radiant Heaters can reduce costs and increase production in your plant.

For information on complete line of Chromalox electric heaters, elements, thermostats, contactors, switches—request Catalog 50.

Edwin L. Wiegand Company

A-4449 7509 Thomas Boulevard, Pittsburgh 8, Pa.

See other ad on pg. 75

For more details circle NED-29 B7 on enclosed inquiry slip

NEW EQUIPMENT DIGEST

BPA NBP

EQUIPMENT • MATERIALS • PROCESSES • DESIGNS • APPLICATIONS • LITERATURE

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New Equipment Digest is published monthly by The Penton Publishing Co., Penton Building, Cleveland 13, Ohio. G. O. Hays, President; R. C. Jaenke, Executive Vice President; F. G. Steinebach, Vice President & Secretary; F. O. Rice, Vice President; J. P. Lipka, Treasurer & Assistant Secretary. Also Publisher of Steel, Foundry, Machine Design and Automation. Accepted As Controlled Circulation Publication at Cleveland, Ohio.

Publisher's Notice: We assume no responsibility for the validity of claims in connection with news items appearing in New Equipment Digest. Addresses are given to facilitate further inquiry.

MAGNETIC-RECORDING PROJECTOR has 15-w amplifier for full volume, can record soundtrack on film

The 15-w amplifier in the Filmosound 16-mm magnetic-recording projector adapts it for use in large auditoriums. This added reserve amplification compensates for variations in film prints and assures full sound volume in low-voltage areas. User can record his own soundtrack on film as well as project both magnetic and optical sound and silent films. Treble and bass frequencies are separately controlled.

Dual recording-level lamps indicate when recording level is correct. A built-in interlock prevents accidental erasure of magnetic recording on film. Available as an accessory is record-erase lock and key to prevent unauthorized recording or erasure. Model 302E, in single case, has built-in 8-in. speaker, while model 302D is available with 12-in. auxiliary speaker, or with 12-in. 25-w power speaker. Made by **Bell & Howell Co.**, 7100 McCormick Rd., Chicago 45, Ill.

For more details circle NED-30 B7 on enclosed inquiry slip

NEOPLASTIC

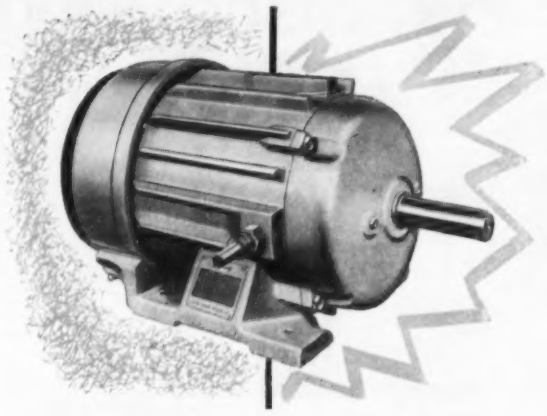
Covering For Conveyor Rolls

Does your product require extra-careful handling around your plant? Logan Neoplastic covering for conveyor rolls is superior to rubber or neoprene. Quality is constant, delivery is quick, price is strictly competitive. Write for details.

LOGAN CO., 215 Cabel St., Louisville, Ky.

Logan Conveyors

For more details circle NED-31 B7 on enclosed inquiry slip



New Louis Allis "Clean-Flo" Lint-Free Textile Motor

Louis Allis now introduces the modern textile-motor concept; totally enclosed, self-cleaned with high-capacity fan — for lint-free operation.

Many features make this motor specially suited for textile industry use. See them in bulletin 1850, "Louis Allis Textile Motor." The Louis Allis Co., 436 E. Stewart Street, Milwaukee 1, Wisconsin.

LOUIS ALLIS

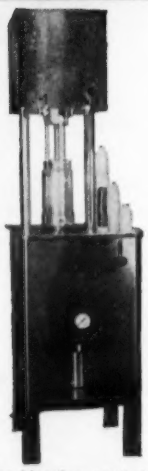
TE-106

For more details circle NED-32 B7 on enclosed inquiry slip

Pyles SEMCO

for Blending and Applying CATALYST and ADDITIVE MATERIALS

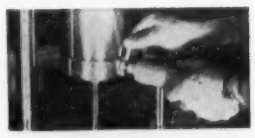
***Pyles-SEMCO* SEALANT GUN *and* PRESSURE MIXER-FILLER**



Capacity: 2½ oz. 6 oz. 12 oz.

Unit measures 18" x 16" x 66" high

Weight 325 lbs.



• The Pyles-Semco Sealant Gun is a lightweight, air-operated hand gun for applying additive sealers and potting compounds. The gun is used with disposable polyethylene cartridges from 2½ oz. to 12 oz. capacity with a wide range of nozzles to fit the application.

• Designed for blending catalyst and additive materials in an air free container so that the mix delivered will be air free. Up to a quart of material may be mixed in a few minutes and delivered, while still under pressure, into a polyethylene cartridge for use with the Sealant Gun.

***Automatic Continuous* BLENDOMETER**

metering and mixing polyurethenes, epoxies, polyesters

Multi-Purpose Pumps
•
Metering and Measuring Devices
•
Hydraulic Hose Machines & Couplings
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Conveyor Lubricators
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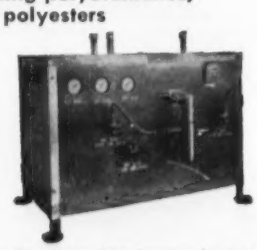
"Tip-Seal" Flow Guns & Nozzles



• The Pyles Blendometer is a production unit suitable for continuous measuring and mixing of two and three part chemical systems. Chemicals, which will gravity flow, can be metered to a mixing head through variable control metering units which can be adjusted with very high accuracy. Unit measures 36" x 21" x 29½" high. Weight 500 lbs.

PYLES INDUSTRIES, INC.
8926 SECOND AVENUE • DETROIT 2, MICHIGAN

For more details circle NED-33 B7 on enclosed inquiry slip

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2	52	102	152	202	252	302	352	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202
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Principal Products Manufactured: _____

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Approximate Number of Employees in Plant: _____

Check Invested Capital Rating of Your Company

- ☐ Over $1,000,000
- ☐ $500,000 to $1,000,000
- ☐ $200,000 to $500,000
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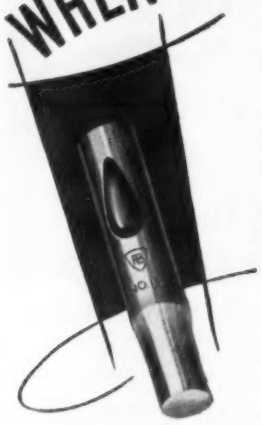
- ☐ Under $75,000

USE THIS SLIP FOR FEBRUARY, 1957 ISSUE ONLY

B-7

WHEN R-B Punches Are Used



R-B Engineering Service Is Available for Your Tough Piercing Problems.

What are your piercing or forming requirements—standard or unusual shapes—small or large holes—steel or special alloys—thin or thick metals? There is either an R-B punch in standard shapes and sizes or R-B will manufacture special punches, die buttons and retainers to your specifications that will provide more efficient piercing operations.

Many hole-making applications, formerly requiring drilling or some other costly means, can now be done with R-B interchangeable punches. If you have thought your piercing jobs too tough for interchangeable punches, it will pay you to investigate the wide application potential of R-B standardized equipment.

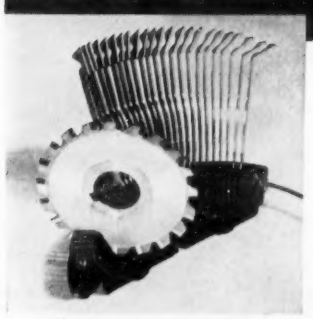
RICHARD BROTHERS PUNCH DIVISION

ALLIED PRODUCTS CORPORATION
Dept. 73, 26482 Capitol Ave., Detroit 39, Mich.

Also Produced in OTHER ALLIED PLANTS
SPECIAL COLD FORGED PARTS • STANDARD CAP SCREWS
PRECISION GROUND PARTS • SHEET METAL DIES MADE OF FERROUS ALLOYS, ZINC ALLOYS OR PLASTICS

For more details circle NED-34 B7 on enclosed inquiry slip

If You Can See It — You Can
SAW IT with a GAY-LEE "THINSAW"



Slotting typewriter type bar segment.

Solve problems in high-precision slitting, slotting, sawing with Gay-Lee carbide-tipped Thinsaw! Wafer-thin for the most delicate work with positive alignment and rigidity that avoid run-out . . . but retaining the speed and long life of carbide. Patented construction holds tips firmly.

Patented — manufactured under license
Stronger Braze Circular Seat

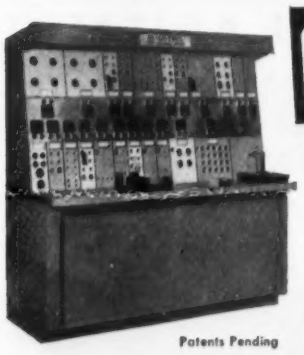
- **THIN AS .030"**
- **DIAMETERS UP TO 12"**

Complete Line of Saws for Any Application—To Any Tolerance

WRITE FOR FULL INFORMATION

GAY-LEE COMPANY
CLAWSON • MICHIGAN

For more details circle NED-35 B7 on enclosed inquiry slip



Patents Pending

CY-CO-TROL Tool Control Units

Reduce Production Costs on All Machines with Multiple Tooling!

cyclometers give you positive control of tool life

standard and special gages used for all tool lengths

Keep your machines operating at top capacity . . .

Helps eliminate down-time for machine adjustments . . .

Eliminate trial runs . . .

Reduce your tool breakage and costly rejects . . .

Many of our Units are now in use throughout the Automotive and Metalworking Industries.

Write for additional information and catalog

ROYAL design and manufacturing, inc.
4133 E. TEN MILE RD., CENTERLINE, MICHIGAN

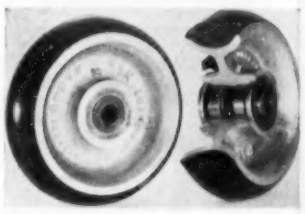
For more details circle NED-36 B7 on enclosed inquiry slip

WIRE STRIPPER
strips film-type insulations

Versatile wire stripper will remove the film insulation from AWG No. 50 to 25 wires. Units employ twin glass fiber wheels with micrometer adjustment of aperture for handling solid, standard and Litz wire. Stripping can be to within 1/8-in. of coils and components. Enamel, Formex, Formvar, nylon and Teflon film insulations can be removed. Made by **Ideal Industries, Inc.**, 1032 Park Ave., Sycamore, Ill.

For more details circle NED-37 B7 on enclosed inquiry slip

ALUMINUM WHEEL
neoprene tire resists oils, acids



Deterioration caused by animal fats, oils, greases, acids and brines is resisted by the neoprene tire of this aluminum wheel for continuous-use industrial applications. Tire also withstands abrasion, cutting, chipping, sunlight, ozone, heat, cold and permanent deformation under load. Low operating temperature makes it suitable for use where friction heat is a problem. Made by **R & K Industrial Products Co.**, 1945 N. Seventh St., Richmond 5, Calif.

For more details circle NED-38 B7 on enclosed inquiry slip

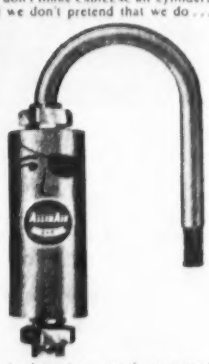
PORTABLE FANS
20-in. propellers are reversible

Pushbutton controls regulate speed and direction of capacitor motor rotation on line of portable fans, offered with accessories for use as a floor circulator, adjustable window fan, tilting floor model and mobile model with adjustable height. A thermostat automatically turns the fan on when the temperature rises and off when it falls. All models have 20-in. diameter propellers, four speeds and are electrically reversible, even while running at full speed. Fingerproof front and rear guards assure safe operation. Thermostat, pilot light and pushbuttons are not included with economy model. Made by **Constellation Fan Co.**, Dept. NED, 639 South Ave., Plainfield, N. J.

For more details circle NED-39 B7 on enclosed inquiry slip

Does VOLKSWAGEN bother *Cadillac?*

We don't make CADILLAC air cylinders and we don't pretend that we do . . .



We furthermore claim that we work hard to ship from stock and our sales chart tells us that we are being successful on all accounts — PRICE, QUALITY, SERVICE.

Besides cylinders, we also make the ALLENAIR line of AIR VALVES, AIR CLAMPS and DIAL FEED TABLES and if we could tell you right here all there is to tell you about what we offer and how those products can increase your PRODUCTION at MINIMUM COST we wouldn't need the $1.25 24-page catalogue that is available for free this month to anyone seriously interested.

We do claim that we make very good cylinders at very good prices:

BORE	BASIC PRICE	ADD PER " OF STROKE
1 1/8"	$15.50	$.35
1 1/2"	$20.50	$.50
2"	$25.50	$.55
2 1/2"	$29.50	$.65
3"	$32.50	$.95
4"	$47.50	$1.20

P.S.—The cylinder pictured is a Factory Reject. The only rods available are straight ones and made out of #416 Stainless Steel ground and polished stock and repolished after machining. The bearing is nylon.

The answer to the question on top of this page is: Not one bit. There is a market for both!

THE A. K. ALLEN CO.
57 Meserole Ave. B'klyn 22, N. Y.

THE A. K. ALLEN CO. 57 Meserole Ave., Brooklyn 22, N. Y. NED-2
Name _____
Company _____
Address _____
City _____ Zone _____ State _____

For more details circle NED-40 B7 on enclosed inquiry slip

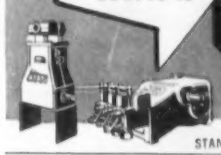
NEED HIGH PRESSURE PUMPING ?

300 to 6,000 PSI *

fmc

your best source is

John BEAN
INDUSTRIAL SALES DEPT.
Division of Food Machinery and Chemical Corporation
LANSING 4, MICHIGAN
SAN JOSE 1, CALIFORNIA



STANDARD PUMP CAPACITIES *

	INSIDE PACKED		OUTSIDE PACKED	
	Pressures to	Liquid Temp. to	Pressures to	Liquid Temp. to
Vertical Duplex	300 PSI	160° F.	1000 PSI	200° F.
Horizontal Triplex	400 PSI	160° F.	6000 PSI	200° F.

* Higher intermittent pressures available

John BEAN ceramic or porcelain-lined pump cylinders LAST A LIFETIME!

also Packaged Power Pumping Units
Custom-Designed Pumps
High Pressure Washers

SEND NED INFORMATION REQUEST FORM TODAY
(Please detail your requirements)

For more details circle NED-41 B7 on enclosed inquiry slip

Combines fine engineering *and* economy!

. . . new FOXBORO Pressure Transmitter

- Scale easily readable at 20 ft.
- Standard time-proved component parts
- Simple calibration "on location"
- Compact integral instrument

The new Foxboro M/44 Pneumatic Pressure Transmitter gives you a unique combination of fine engineering and economy. It's a compact, integral instrument . . . no attachments or "makeshifts." Utilizing standard, performance-proved Foxboro parts throughout, it assures you not only top performance, but easier stocking and servicing as well. "Convenience-design" makes calibration in the field a cinch. Drawn-steel, weatherproof, air-purged case with tough polyester plastic cover. A neat, high-efficiency, low-cost instrument for centralized operation or control. All standard ranges. Write for full details. **The Foxboro Company, 662 Norfolk St., Foxboro, Mass.**

FOXBORO REG. U. S. PAT. OFF. INSTRUMENTATION

For more details circle NED-42 B7 on enclosed inquiry slip

ADAMS creates a Cyclone to give you Drier Compressed Air

The Adams Aftercooler and Cyclone Separator are a perfect team. The highly efficient aftercooler condenses more moisture . . . the separator's unique design creates a cyclone to remove more of the condensation.

Write today for all the facts . . . Get your copy of Bulletin 711.

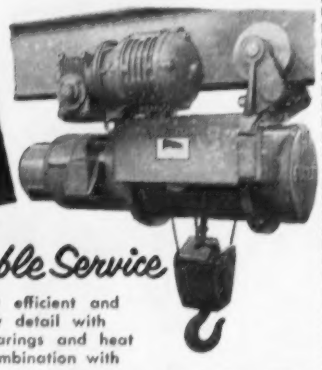
R. P. ADAMS CO., INC. 227 E. PARK DRIVE BUFFALO 17, N. Y.

For more details circle NED-43 B7 on enclosed inquiry slip

Series H-Capacities from 2000 to 50,000 Pounds

EUCLID HOISTS

for Dependable Service

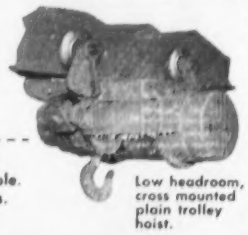


These hoists are highly efficient and strictly modern in every detail with oversize anti-friction bearings and heat treated steel parts in combination with a welded frame.

The planetary gearing and mechanical load brake are mounted in oil tight housings. The hoist gearing is assembled in the hoist drum.

This design produces an unusually compact, rugged and accessible hoist readily adapted to various installations and types of control.

Write for Literature



Low headroom, cross mounted plain trolley hoist.

Various other standard and special heavy duty hoists available. Write regarding your requirements.

THE EUCLID CRANE & HOIST COMPANY
1362 CHARDON ROAD • CLEVELAND 17, OHIO

For more details circle NED-44 B7 on enclosed inquiry slip

A break for men who wear hoods!

New Bullard abrasive blasting helmets and lead discing helmets are extra lightweight. Wear them for hours without fatigue. Protection from overhead hazards is afforded by a "HARD BOILED" aluminum hat used as a headpiece.

Wearer has clear, wide angle visibility through large hinged plastic face piece. To diminish abrasive pitting, perforated metal screen slides over face piece.

Cape is lightweight, double coated plastic with dust-proof self adjusting inner neckband.

USE CLEAN MOISTURE-FREE AIR

Wherever compressed air is used in helmets, tools or painting, a Bullard purifier hooked into the system dries and cleans air from compressor — protecting men and materials.

Write for catalog and specifications of Bullard protective hoods and air purifying equipment.

E. D. BULLARD COMPANY, Sausalito, California

BULLARD INDUSTRIAL SAFETY EQUIPMENT

For more details circle NED-45 B7 on enclosed inquiry slip

SELF-SEALING PIPE FITTING has Teflon plastic sealing insert

This thin, nut-like metal fitting with white circular insert of Teflon will prevent leaky pipe connections. The Tru-Seal fitting seals instantly and permanently when threaded onto a standard pipe connection. Since plastic insert is heat resistant and chemically inert, fitting can be used in lines carrying oil, water, gas, air, steam, chemical fluids, milk and other beverages. It holds its seal under 10,000 psi ultimate pressures and −200 to 500° F temperatures. Made by **Flick-Reedy Corp.**, Tru-Seal Div., 2002-08 N. Hawthorne Ave., Melrose Park, Ill.

For more details circle NED-46 B7 on enclosed inquiry slip

ADJUSTABLE HOLE GAGES set covers 0.025 to 0.380-in. holes

Small hole diameters are quickly measured to within 0.0005-in. accuracy with the Kwik-Chek hole gage. Direct reading scale is marked in 0.001-in. increments and has 2½X magnifying lens. Set of three gages checks diameters from 0.025 to 0.380-in., with each unit having a range of 0.125-in. Gage consists of tapered retractable needle, precision clutch mechanism and magnified scale. Made by **Hamilton Watch Co.**, Allied Products Div., Dept. N, Lancaster, Pa.

For more details circle NED-47 B7 on enclosed inquiry slip

VISE ANGLE ADAPTER permits up, down and arc vise action

Addition of an angle adapter to a No. 73½ Gyro-Vise permits movement up and down and in an arc for holding work in any required position. Adapter thus increases the versatility of the vise which normally operates from and rotates around a standard base, either in any upright or on-its-side position. Removable and replaceable pipe jaws are also available for the vise which has 7⅞ sq in. of jaw gripping area, 3½-in. jaw width and a 1¾-in. square anvil. Made by **Columbian Vise & Mfg. Co.**, 9023 Bessemer Ave., Cleveland 4, O.

For more details circle NED-48 B7 on enclosed inquiry slip

USE EASY-IN EASY-OUT... *SpiroLox*

Retaining Rings with compact 2 turn design

Eliminates trouble spots, costly machining and awkward parts!

Application pictures below show how simply and effectively cylindrical assemblies are positioned and locked by Spirolox! Unique *two-turn* design conforms to internal or external groove. Spirolox will not jump out because opening and closing force is resisted by friction between turns. Always provides a uniform shoulder! No gaps to interrupt uniform circumference; no lugs to create weak spots. Easy to flip out with screwdriver.

FREE TEST SAMPLES AND DATA BULLETIN
Send us blueprint of your retaining problem!
Ramsey Corporation, Dept. F, St. Louis 8, Mo.

5762RR

U. S. Pat. No. 2,450,425 and Foreign Pats. Other Pats. Pend.

SPIROLOX—the Better Way to Hold Moving Parts TOGETHER!

For more details circle NED-49 B7 on enclosed inquiry slip

Announcing... AMERICA'S MOST MODERN—MOST EFFICIENT Automatic Hand and Hair Dryer

Never Before So Many Exclusive Features

Decorator Styling!—Blends perfectly with today's new fixtures . . . modernizes old washrooms.
Faster Drying!—Increased air flow . . . gives much greater drying efficiency.
Quieter... Safer!—Dynamically balanced motor and blower operate smoother and quieter.
Less Maintenance Required!—New timer gives longer service . . . thermostatic motor protection eliminates fuse replacement.
More Economical, Too!—Delivers more warm air with 33⅓% less current consumption.

GUARANTEED *2 FULL YEARS*

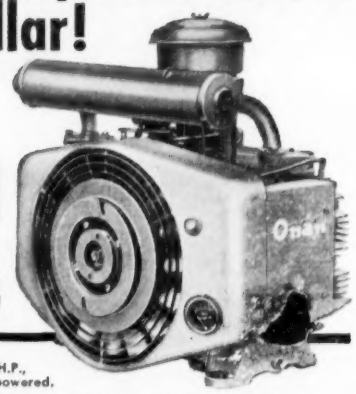
Write Today For New Brochure ...SHOWS THE COMPLETE LINE

"Dependable Since 1897"
THE CHICAGO HARDWARE FOUNDRY COMPANY
1927 Commonwealth Ave., North Chicago, Ill.

For more details circle NED-50 B7 on enclosed inquiry slip

More horsepower-hours per dollar!

NEW! ONAN *SHORT STROKE* ENGINES



Model CCK, 12.9 H.P., two-cyl., gasoline-powered.

Add the powerful sales features of Onan long-life engines to your equipment at no extra cost. Designed and built for continuous service; run hundreds, *even thousands of hours* with minimum attention. Compact, smooth-running.

Onan air-cooled engines are today giving outstanding performance and sales appeal to equipment such as portable welders, air conditioners, truck refrigeration, pumps, etc. Build competitive advantages into your equipment with Onan long-life, air-cooled power.

THREE MODELS—**Model CCK**, 12.9 H.P., two-cylinder, gasoline-powered. **Model DRP**, 15 H.P., two-cylinder, Diesel-powered. **Model AJ** 5.5 H.P., one-cylinder, gasoline-powered.

Write for Specifications!

Onan ELECTRIC PLANTS

D. W. ONAN & SONS INC.
3629 Univ. Ave. S. E., Minneapolis 14, Minn.

For more details circle NED-51 B7 on enclosed inquiry slip

BENCH-TYPE AGITATED Plastic Seal dipping tank

FOR LOW COST PROTECTION FROM RUST AND DAMAGE

• Constant level in dipping area • Impeller-type agitator • Thermostatically controlled temperature • 14 pound capacity • Increases pot-life — reduces discoloration.

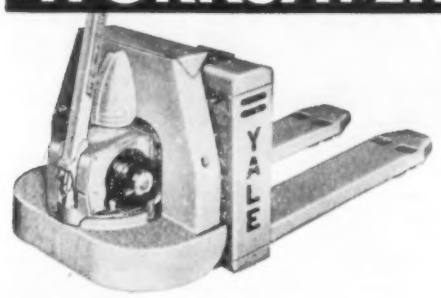
Write for information on Plastic Seal Dipping equipment and Plastic Seal hot-dip protective coatings.

PLASTIC SEAL A PRODUCT OF
GLOBE IMPERIAL
DIVISION OF **PRECISION CASTINGS CO.**
2023 KISHWAUKEE ST. ROCKFORD, ILLINOIS

For more details circle NED-52 B7 on enclosed inquiry slip

YALE PALLET TRUCK

WORKSAVER



ONLY 24" LONGER THAN THE LOAD
New compact design of Yale *Worksaver* drive unit and battery compartment cuts down "lost space".

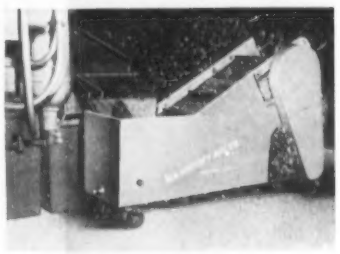
SWINGS OPEN FOR EASY MAINTENANCE
Removal of two pins permits one man to swing open entire front compartment for easy, quick maintenance.

New Yale *Worksavers* come in capacities of 4,000 and 6,000 lbs. Also, get the facts about other Yale *Worksaver* models. Write: The Yale & Towne Mfg. Co., Philadelphia 15, Pa., Dept. 372.

YALE* INDUSTRIAL LIFT TRUCKS AND HOISTS
*REG. U. S. PAT. OFF.

For more details circle NED-53 B7 on enclosed inquiry slip

METAL PARTS CONVEYOR
has rust preventive dip tank



Work coming from a centerless grinder or other machine falls into the tank of this portable conveyor which is filled with 6½ gal of rust preventive. Parts drain as they move upward on a cleated belt and fall onto a small apron, then into pans placed at the end of the conveyor. Shaker and drain screen at end of belt removes excess fluid. Conveyor has 3/16-in. holes and is easily adjusted for tension. It travels at 400 ipm, will handle up to 5 lb per cleat and is available in 9½ and 17 in. widths. Unit is mounted on 3-in. casters for portability and is powered by a 1/6-hp motor. Made by **W. A. Whitney Mfg. Co.**, 644 Race St., Rockford, Ill.

For more details circle NED-56 B7 on enclosed inquiry slip

WEBB *hand pushed* TROLLEYS

Webb Hand Pushed Trolleys are sturdily built for long life and minimum maintenance. Hardened steel wheels equipped with retainer type ball bearings assure long wearing properties and ease of operation. Triple labyrinth seals keep lubricant in and dirt out. Side guide rollers effectively eliminate binding and excessive wear, especially when moving loads around curves. For simple, inexpensive and easy handling of materials, use Webb Hand Pushed Trolleys.

P-2530 TROLLEY
½ Ton Capacity
4" to 12" I-BEAM

Write for Bulletin No. 453:

JERVIS B. WEBB CO.
Conveyor Engineers and Manufacturers
8921 ALPINE AVE. • DETROIT 4, MICH.
Offices In Principal Cities

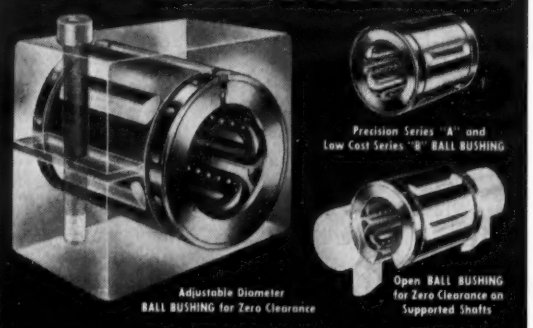
For more details circle NED-59 B7 on enclosed inquiry slip

TUBE EXPANDER DRIVE
heavy duty right angle gear type

Roller bearings minimize friction and reduce power loss in this heavy duty right angle gear drive for use in boiler tube expanding. Outer case is forged steel. Drive is offered in ½, ¾ and 1-in. sizes. Made by **Elliott Co.**, Lagonda Div., Springfield, O.

For more details circle NED-57 B7 on enclosed inquiry slip

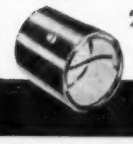
-NOW! *Adjustable Diameter and Open*
THOMSON BALL BUSHINGS



The BALL Bearing for all your LINEAR MOTIONS

LOW FRICTION · ZERO SHAKE OR PLAY
ELIMINATE BINDING AND CHATTER
SOLVE SLIDING LUBRICATION PROBLEMS
LONG LIFE · LASTING ALIGNMENT

The various types cover a shaft diameter range of ¼" to 4". Small sizes available in Stainless Steel. Write for literature and name of our representative in your city.

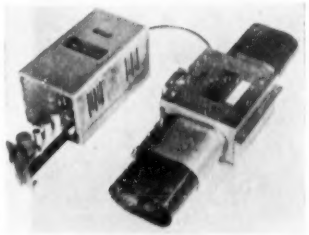


THOMSON INDUSTRIES, Inc.
Dept. C, MANHASSET, NEW YORK

Also manufacturers of NYLINED Bearings ... Sleeve Bearings of DuPont NYLON

For more details circle NED-54 B7 on enclosed inquiry slip

AUTOMATIC DISPATCHING SYSTEM
controls tube carriers going 30 mph



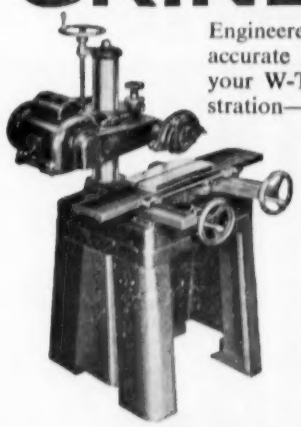
Carriers traveling up to 30 mph in pneumatic tube systems or by other high-speed conveying means can be controlled by this Magnepulse Dispatcher. This automatic dispatching system allows installation of an economical loop-type system rather than conventional multitube system. Destination coding is achieved through use of small permanent magnets fixed to carrier. One selector positions station magnet for any of 10 stations, another selector positions the loop magnet for the loops. With carrier in transit, position of magnets in reference to first magnet is detected at each loop switching point and station. Technique adapts to switching uses in wire, sheet and rod mills. Made by **Gemco Electric Co.**, 25685 W. Eight Mile Rd., Detroit 19, Mich.

For more details circle NED-58 B7 on enclosed inquiry slip

NEW—from WALKER-TURNER

A complete line of "Light-Heavyweight"

GRINDERS



Engineered to give you faster, more accurate grinding *at low cost*. Ask your W-T distributor for a demonstration—mail coupon for details.

NEW WALKER-TURNER SURFACE GRINDER
Use it as a big capacity grinder that offers you the *extra* ability to do chip-breaker and tool and cutter grinding. You get simple set-up, precision accuracy, *AND* surprisingly low cost.

NEW WALKER-TURNER 6" BENCH GRINDER
. . . takes up minimum space for grinding, polishing and buffing. Balanced grinding wheels and precision ground shaft provide smooth, accurate performance.

NEW WALKER-TURNER 6" CARBIDE TOOL GRINDER
. . . keeps your carbide-tipped cutting tools at peak efficiency. Vibration-free operation assures true grinding. Tables tilt for wet or dry grinding at any angle.

NEW WALKER-TURNER 7" TOOL GRINDER
. . . combines positive accuracy with advanced safety features. You get dual shatterproof-glass eye shields, wheel guards, dust chutes, removable steel side plates, and adjustable spark deflectors.

NEW WALKER-TURNER DUST COLLECTOR
. . . has strong, pressed steel cabinet, removable filter, enclosed ⅓ H. P. motor and fan that moves 350 cubic feet of air per minute. Unit is compact and portable.

walker-turner **WALKER-TURNER**
Division of Rockwell Manufacturing Co.,
Dept. WB-45, 400 N. Lexington Ave., Pittsburgh 8, Pa.
☐ Please send name of my Walker-Turner distributor.
☐ Please send literature on Walker-Turner Grinders.
Name _____
Address _____
City _____ Zone ____ State ____

For more details circle NED-60 B7 on enclosed inquiry slip

- 12 spindle speeds, instantly selected with direct-reading, color match dial.
- All-geared spindle drive transmission.
- Totally enclosed quick change gear box. 48 or 54 thread-feed changes.
- Ground and flame hardened bedways insure years of accurate service.
- Hardened steel gears in all 3 transmissions assure long-life operation.
- Fully enclosed electrical controls increase operating ease and safety.
- Tray-Top Lathes give you many other features normally found only on larger, more expensive lathes. For all the facts and features, see your Cincinnati dealer. Send today for catalog data.

Because it's a
CINCINNATI TRAY-TOP LATHE
more goes into it... you get more out of it!

CINCINNATI 15" TRAY-TOP LATHE
Also available in 10", 12½", 18", 21½" and 26" sizes.

CINCINNATI LATHE AND TOOL CO.
3207 Disney St., Cincinnati 9, Ohio
Builders of Engine, Toolroom and Fixed Gap Bed Lathes and a Complete Line of Drilling Machines

For more details circle NED-55 B7 on enclosed inquiry slip

Your insides feel like a SAND STORM ?

YOU NEED A

DUPOR AUTOMATIC

Water-Cooled Respirator

Sponge filter saturated in cool, clear water provides moist air for comfortable breathing. Ideal protection against dust, fumes, smoke, paint spray. Full panorama visibility. Can be worn with goggles or glasses. Work refreshed, order a water-conditioned respirator today! Sample, $2.25 postpaid.

H. S. COVER, P. O. Box 2508
South Bend 14, Indiana

"Respirators for Industry since 1894"

For more details circle NED-66 B7 on enclosed inquiry slip

the original DOUBLE-ACTION Go-Jo HAND CLEANER

REG. U. S. PAT. OFFICE

REMOVES GREASE AND GRIME—all Stubborn Soil IN 1/2 THE TIME ...easier ...faster ...safer

Cuts HAND CLEANING COSTS 50% AND MORE saves time saves money

The First and Only Fully Automatic

"ONE SHOT" DISPENSER

Amazing double-action cleaner—may be used with or without water—provides the best in fast action, removal of grease, grime, paint, ink, asphalt—all stubborn soil. No harsh abrasion—guards against Dermatitis—soothing, safe protection for the skin.

Proven highest time-saving efficiency with "one-shot" dispenser—gives just the right amount every time—convenient replaceable throw-away can. It's time you investigated Go-Jo.

GET DETAILS

Send for information to
GOJER, INC., Box 991, Akron, Ohio

Name_____ Title_____
Company_____
Address_____
City_____ State_____

America's Largest Manufacturer of Creme Type Hand Cleaners

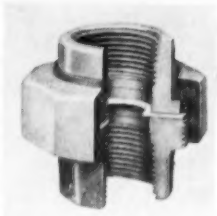
For more details circle NED-67 B7 on enclosed inquiry slip

BLUEPRINT FILES can be used with other make files

Inter-Member line of blueprint files is designed to meet General Services Administration requirement that all units must interlock and intermember with existing standard units of this and other manufacturers. They are suited for filing of blueprints, maps, drawings, artwork, tracings, electrotypes, boards and swatches. Coated-fabric covers flatten sheets to keep them from curling. Drawers are prepunched for dividers and roll on ball bearings. Made by **Stacor Equipment Co.,** 786 E. New York Ave., Brooklyn 3, N. Y.

For more details circle NED-68 B7 on enclosed inquiry slip

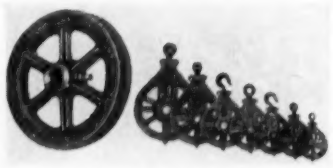
INSULATING PIPE UNION prevents electrolytic corrosion



Electrolytic corrosion due to flow of electric current along pipe lines can be prevented with use of insulating forged steel unions. Insulating sleeve separating tail piece and nut is fabric-reinforced phenolic resin, while gasket which seals union joint is Teflon. Rated 3000 psi, unions are made in 1/4 to 3-in. screw-end and socket-welding types by **H. K. Porter Co.,** W-S Fittings Div., Dept. N, Box 95, Roselle, N. J.

For more details circle NED-69 B7 on enclosed inquiry slip

BLOCKS & SHEAVES various sizes of alloy, cast steel



Light in weight for easy handling and designed to minimize wear on running ropes, Durolite wire rope blocks and sheaves start instantly and stop without spinning. They are made in stock sizes from 6 to 18 in. in alloy steel and 20 to 24 in. in cast steel. End thrust bearings prevent side frame wear, free-moving swivels facilitate positioning, and cast bead on side frames prevents rope fouling. Sizes from 6 to 18 in. have bronze bearings and from 8 to 42 in. have roller bearings. Sizes up to 54 in. or specials can be furnished. Made by **Sauerman Bros., Inc.,** Dept. NDC, 620 S. 28th Ave., Bellwood, Ill.

For more details circle NED-70 B7 on enclosed inquiry slip

BUSCHMAN CONVEYORS save $10,000 to $12,000 annually at UARCO Inc.

Over a third of a mile of BUSCHMAN belt and roller conveyors have replaced a skid system of handling in-process forms at UARCO Inc., noted business form manufacturer. A 30% reduction in manhours plus a saving of 2000 sq. ft. of floor space effects a $10,000 to $12,000 saving annually. The above is typical of the "pay-for-themselves" records being established by BUSCHMAN. Each installation is complete to meet your specific needs—dictated by your products, process and space available.

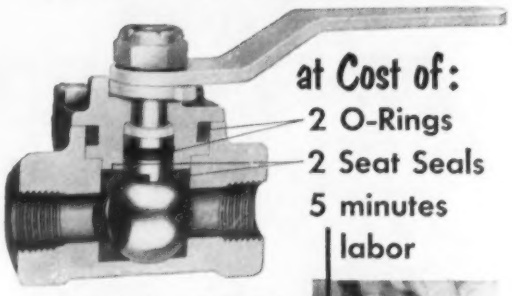
WRITE FOR BULLETIN NO. 60

THE E. W. BUSCHMAN CO.
4482 Clifton Avenue
Cincinnati 32, Ohio

PRODUCE MORE ... FOR LESS on Buschman Conveyors

For more details circle NED-71 B7 on enclosed inquiry slip

Install "NEW" Valve



at Cost of:
2 O-Rings
2 Seat Seals
5 minutes labor

That's all it takes for easy TOP ENTRY "in-line" maintenance of Worcester's new TWIN SEAL BALL VALVE.* To replace sealing components, simply remove the four bonnet bolts, and then the bonnet assembly. Ball and seat rings are easily lifted out by using hook in the hole provided in the stem slot. After cleaning seating surfaces in the body, replace ball and new seat rings as a unit. A new O-ring at the bonnet joint and around the stem will assure tight seals at these critical points. Result? . . . "factory tight" sealing properties in your long lasting Worcester TWIN SEAL Ball Valve . . . plus flexibility of seat selection to suit a great variety of media.

*Patents Pending

WV Ball Gate Needle Valves

WORCESTER VALVE CO., INC.

Write for full particulars

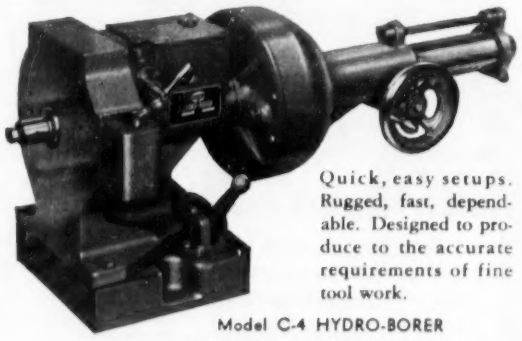
18 PARKER ST. • WORCESTER, MASS.

For more details circle NED-72 B7 on enclosed inquiry slip

GREENLEE **PRECISION BORING AT LOW COST**

Model C-4 HYDRO-BORER

Offers precision boring quality at low cost. Easily mounted on any type of base. Fixtures can be mounted on face of machine.



Quick, easy setups. Rugged, fast, dependable. Designed to produce to the accurate requirements of fine tool work.

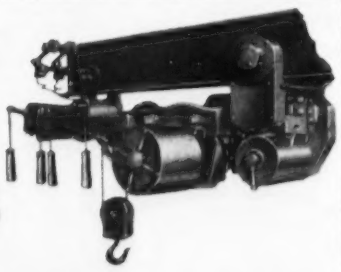
Model C-4 HYDRO-BORER
WRITE FOR COMPLETE INFORMATION

GREENLEE **GREENLEE BROS. & CO.**
2242 MASON AVENUE
Rockford, Illinois

For more details circle NED-73 B7 on enclosed inquiry slip

ELECTROLIFT

WORM DRIVE HOISTS



keep materials on the move

ElectroLift Worm Drive Hoists are designed for year-after-year operation with top performance and efficiency. Their design and construction assure safe, quiet, speedy action for uninterrupted flow of materials. ElectroLift offers a selection of hoisting speeds, height of lifts and controls in capacities up to 10 tons. Consult your ElectroLift representative listed in the telephone directory.

3792

ELECTROLIFT

ELECTROLIFT, INC., 204 Sargeant Ave., Clifton, N. J.

For more details circle NED-74 B7 on enclosed inquiry slip

COMPARE!

Hart COUNTERS GIVE YOU MORE!

STD MODEL 5A

● Only Hart Counters — with simplified, one-part INSIDE reset design, solid wheels, and less than 16 working parts — have total accuracy and durability GUARANTEED! Two to five years, depending on model.

● Only Hart Counters have this exclusive WARRANTY OF "TRIPLE VALUE": (1) TWO YEARS FREE SERVICE, (2) SIX YEAR DEPRECIATION guaranteed to be less than one-half cent per day, (3) CREDIT ALLOWANCE given on counters requiring replacement within less than six years.

● Hart Counters are jump-proof and slip-proof — with premium features including easy vision window and large, easy-to-read numerals . . . handle spring . . . durable gray-wrinkle enamel finish . . . anti-corrosion plating . . . best in materials, engineering, and workmanship.

Every counter dated. Available in five and six wheel models, right or left operating arm. Priced from $10.60.

Send For Free Literature

R. E. HART MANUFACTURING CO.
940 N. Main St. • Ann Arbor, Mich. • Since 1889

For more details circle NED-75 B7 on enclosed inquiry slip

TURNIT

TURNOVER HERE

Assures
50% LESS TURNOVER HERE where it really counts

TURNIT, makes *correct* rotation of diamond tools a simple effortless operation; saves 50% and more in diamond tool cost.

Now you can get a better wheel finish, closer work tolerance, longer wheel life and, at the same time, eliminate wheel glazing and minimize grinding wheel heat, cracks and fractures.

There is a TURNIT for almost every grinding application on all types and models of grinders. Whether you wish manual or automatic operation, internal or external installation call or write for recommendations.

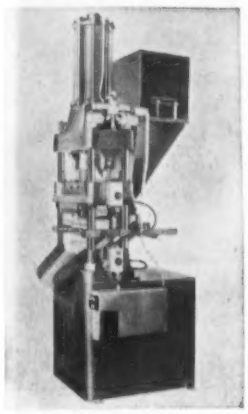
For further information ask for your copy of the new Turnit bulletin.

J. K. Smit are also manufacturers of diamond tools, diamond wheels, diamond drill bits, diamond lapping compound and diamond powder.

J. K. SMIT & SONS, INC.
Murray Hill, N. J.
TORONTO • • • DETROIT

For more details circle NED-76 B7 on enclosed inquiry slip

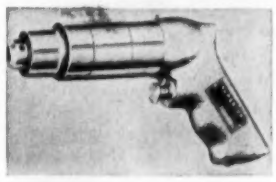
PLASTICS PRESS
exerts 50 tons on 100 psi



Producing 50-ton pressure on 100-psi air supply, the Automold model A50-B compression molding press can be made to exert 60 tons by increasing air pressure to 120 psi. Machine is improvement of the model A50 (*NED, December,* '55) and now incorporates a three-roller toggle system. It can mold any thermosetting material, including the fast curing alkyds. Other features, including 4-second cycle, platen area of 14 x 6 in., stroke of 7¾ in. and mold area of 50 sq in., are retained. Made by **Automatic Molding Machine Co.,** 3217-NE Exposition Pl., Los Angeles 18, Calif.

For more details circle NED-77 B7 on enclosed inquiry slip

AIR DRILL
speed variable from 0 to 2500 rpm

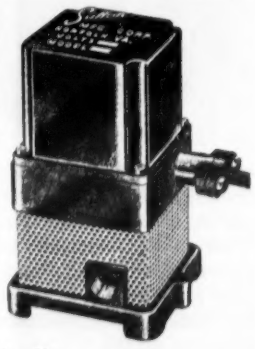


Producing ¼-hp on 90-psi air, the S-P 1000 industrial air drill has ¼-in. capacity, a safety chuck shield and a metering trigger that regulates speed from 0 to 2500 rpm. The 2-lb tool has nickel steel gears and preloaded sealed bearings. Pistol grip or straight handles are available. Made by **Superior Pneumatic & Mfg., Inc.,** Dept. NE, 4758 Warner Rd., Cleveland 25, O.

For more details circle NED-78 B7 on enclosed inquiry slip

SUBMERGED TYPE PUMP
12½-gpm delivery at 2½-ft head

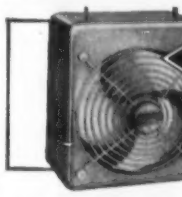
Constructed of bronze with a baked-on exterior finish, the HSM submerged type bilge pump has 45 sq in. of heavy gage wire screen area. It has a delivery of 12½ gpm at 2½-ft head, 5½ gpm at 7-ft head and 2½ gpm at 11½-ft head. Watertight in any position and vaporproof under hazardous conditions, the pump's motor is sealed from entry of air, water, grease, oil or vapors. Model HSA has an automatic switch assembly. Both models are available for 6, 12, 32 and 110 v dc use. Made by **Sutton Mfg. Corp.,** Dept. NED, 112 W. Wilson Ave., Norfolk, Va.



For more details circle NED-79 B7 on enclosed inquiry slip

SLIP-ACCIDENT PROTECTION

For more details circle NED-80 B7 on enclosed inquiry slip



ILG ELECTRIC UNIT HEATERS ... via Graybar

For complete satisfaction in heating any critical area in plant, warehouse or office, choose an ILG Electric Unit Heater. ILG is the pioneer designer and manufacturer of propeller type electric unit heaters. Order from any one of Graybar's coast-to-coast locations.

Send for FREE bulletin!

Here's a well illustrated publication that helps you select the right unit space heater for any industrial or commercial heating job. Complete specifications are tabulated for heaters and controls ranging from 1½ KW to 15 KW. Safety and automatic temperature features are well covered, and a convenient table lists heat requirements for floor areas from 50 to 3000 square feet at temperature ranges from 20°F to 70°F. For complete information, write 697-282

GRAYBAR ELECTRIC COMPANY, INC.
420 Lexington Ave., New York 17, N. Y.

Call Graybar first for . . .
IN OVER 130 PRINCIPAL CITIES

Everything Electrical GraybaR ELECTRIC COMPANY

For more details circle NED-81 B7 on enclosed inquiry slip

LIFTS and PULLS at ANY angle . . .

Move machinery, pull boiler tubes, join belts, set pipe, lift motors—for 1001 uses pick up a

CM PULLER

¾ TON MODEL WEIGHS ONLY 13 LBS.

● Operated by a ratchet handle requiring no more effort than an automobile jack. Objects up to 12,000 lbs. can be lifted or pulled . . . vertically, horizontally or at any angle. Anyone can operate. Automatic brake holds loads at any point. Inexpensive. Sturdy. Safe. CM-Alloy flexible welded load chain.

Send for **PULLER** Bulletin 146 Illustrated and with prices.

Capacities: ¾ to 6 ton

CM HOISTS AND CHAIN
CHISHOLM-MOORE HOIST DIVISION
COLUMBUS McKINNON CHAIN CORPORATION
TONAWANDA, NEW YORK
DISTRICT OFFICES: NEW YORK, CHICAGO, CLEVELAND
In Canada: McKinnon Columbus Chain Limited, St. Catharines, Ontario

For more details circle NED-82 B7 on enclosed inquiry slip

Heavy Duty Shuford's SHURTAPE®

does Double Duty in the Plant!

For heavy duty packaging and to protect machined metals in storage, in transit or during buffing, drilling or welding . . . use Shuford's SHURTAPE RP-25.

This heavy rope paper pressure-sensitive tape is rubber-impregnated for extra strength and high resistance to abrasion. Stands up under high temperatures . . . resists water, oil and solvents . . . adheres instantly, sure to seal and strips clean!

Heavy Duty Shuford's SHURTAPE does double duty in the plant . . . use it!

For more information, write

CLOTHES LINES • TWINES
PRESSURE-SENSITIVE PAPER TAPES
SASH CORDS • WEATHER STRIPPING
COTTON & RAYON YARNS • EXTRUDED PLASTICS

Shuford Mills, Inc. SINCE 1880 HICKORY, N. C.

World's Largest Manufacturer of Cotton Cordage

For more details circle NED-83 B7 on enclosed inquiry slip

Commander TAPPER

★ Wider Range...1 Tapper Handles #0 to 3/4" Taps

★ Automatic Tap Protection

★ Furnished to fit any Drill Press

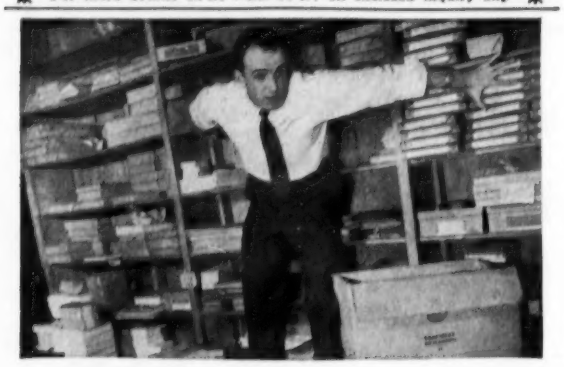
Commander—"The Tapper That Thinks For Its Operator," has the adjustable full range torque control that instantly stops any tap when it becomes dull, loaded, strikes a hard spot or bottoms in blind hole tapping. Assures maximum tap protection, higher production, even with inexperienced operators.

Your nearby Commander distributor can give you a demonstration in your own plant. Write for his name and a copy of the NEW Commander Full Line Catalog.

COMMANDER MFG. CO.
4220 W. Kinzie St. Chicago 24, Ill.

Product of Commander... Builder of Production Tools

For more details circle NED-84 B7 on enclosed inquiry slip



QUICK—call the Deluxe Dealer . . . we have a shelving problem

For the answers to all your shelving problems, consult your local Deluxe steel shelving dealer. He will give you on-the-spot layout service and supply additional racks as you need them.

Only Deluxe offers all these features

- One-piece bin-type uprights
- Boltless adjustable shelf brackets
- Snap-in dividers for flexibility
- Factory reinforced shelves
- Low cost installation.

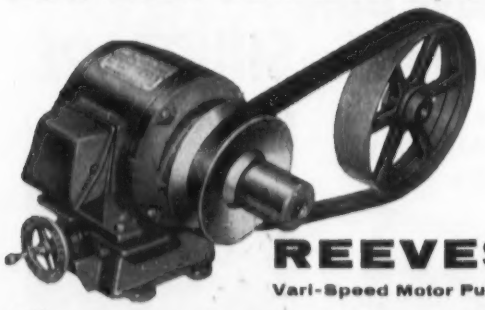
Write for 56-page "Shelving Reference Manual"

DELUXE

DELUXE METAL FURNITURE CO. Warren, Pa. A Division of Royal Metal Mfg. Co.

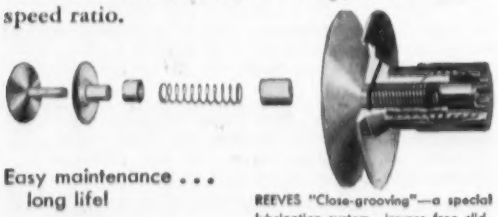
For more details circle NED-85 B7 on enclosed inquiry slip

Low Cost Variable Speed!



REEVES
Vari-Speed Motor Pulley

A compact, low-cost variable speed drive that widens machine range . . . adds flexibility. Fourteen models for 1/8 to 15 hp; 1.75:1 to 4:1 speed ratio.



Easy maintenance . . . long life!

Just 5 simple parts.

REEVES "Close-grooving"—a special lubrication system—insures free sliding disc for easy speed changes.

For bulletin, complete with rating charts, write Dept. ND21d-VS45

REEVES PULLEY COMPANY
Division of RELIANCE Electric and Engineering Co.
COLUMBUS, INDIANA

For more details circle NED-86 B7 on enclosed inquiry slip

TYPE COMPOSING MACHINE automatically spaces between lines

Dial selector calibrated in half-point graduations enables the model 160 Vari-Typer type composing machine to automatically insert from 0 to 18 points of space between lines printed by interchangeable type faces. Reverse action mechanism permits accurate feed-back of paper to any desired position. Signal light aids operator in preparing copy for justified or even right-hand margins. Machine features pointer for precise alignment in preparing forms, tabular material and justified margins. Made by **Vari-Typer Corp.**, Dept. NED-160, 720 Frelinghuysen Ave., Newark 12, N. J.

For more details circle NED-87 B7 on enclosed inquiry slip

TRASH BURNER capacity is 9 bushels

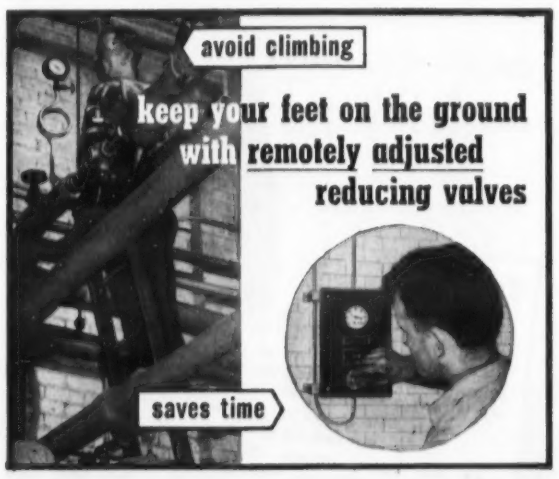
Heavy gage Armco aluminized steel used in this 9-bushel capacity trash burner resists heat, rust and corrosion. Suited for small industrial plants, it has a replaceable heavy steel grate and protective fire screen. Made by **Bohem Mfg. Co.**, 12 Water St., Bryn Mawr, Pa.

For more details circle NED-88 B7 on enclosed inquiry slip

FOUR WHEEL TRACTOR utilizes high-torque drive

Power train employed by model GLT Dynamotive four-wheel tractor consists of high-output generator direct-coupled to Continental gasoline engine. Generator powers high-torque electric motor which, in turn, is direct-coupled to differential pinion. High efficiency affords over 25 per cent fuel saving. Transmission of road shock to engine is eliminated, prolonging engine life. Unit is foot-accelerated and has dynamic braking, automotive controls and four-wheel suspension. Drawbar pull is 600 lb normal, 2000 lb ultimate. Made by **Automatic Transportation Co.**, 149 W. 87th St., Chicago 20, Ill.

For more details circle NED-89 B7 on enclosed inquiry slip



Control those inaccessible Pressure Reducing Valves from any location you wish!

A LESLIE Air Loading Panel, Type P and remotely adjusted reducing valve eliminates dangerous ladders, wasted time and costly overheating.

Most LESLIE manually adjusted Reducing Valves now in service can be converted quickly and economically in the field for remote adjustment.

Send for Bulletin 5302, for complete story.

LESLIE

REGULATORS and CONTROLLERS

LESLIE CO., 227 Grant Avenue, Lyndhurst, New Jersey

For more details circle NED-90 B7 on enclosed inquiry slip

HOMER MAGNETIC SHEET SEPARATORS

Make it easier, faster and safer for employees to handle round, square, nested, irregular or odd shaped stacks of steel sheets—in shearing, welding, pressing, riveting or similar production operations. Prevent double feeding of sheets—protect dies and machinery. Oily, polished, enameled or painted sheets separated without prying, scratching or marring the surfaces.

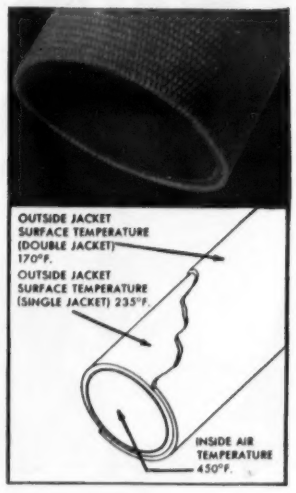
WRITE FOR BULLETIN SS-210

THE HOMER MANUFACTURING CO., INC.
DEPT. 1-52 LIMA, OHIO

For more details circle NED-91 B7 on enclosed inquiry slip

NEW QUAKER HOSE for hot air ducting

Made in continuous lengths up to 50', this new hose easily withstands temperatures as high as +450°F; as low as —80°F. Its synthetic fabric jacket and silicone tube retain temperatures from upstream to downstream end . . . cut heat loss up to 57%. Lightweight and fully flexible, the hose resists abrasion. Available in either single or double jacket, and in 1" to 4" I.D.'s. Sizes 1" and 1¼" I.D. can be made in 30' continuous lengths; 1½" to 4" I.D. in 50' lengths. The hose takes regular expansion and shank hose couplings.



For more information, write:

H. K. Porter Company, Inc.,
Quaker Rubber Division, Philadelphia 24, Pa., or
Quaker Pioneer Rubber Division, Pittsburg, Calif.

HKP QUAKER RUBBER DIVISION
QUAKER PIONEER RUBBER DIVISION
H. K. PORTER COMPANY, INC.

For more details circle NED-92 B7 on enclosed inquiry slip

NOW *from America's* FOOTSWITCH *leader*

A NEW **HEAVY DUTY** LINE

★ Rugged
★ Cast iron enclosure
★ Safety-guarded

Hercules by LINEMASTER

2 Contact Types — 40 Different Models
4 Classes *(all in single, two or three stage)*
General Purpose *Water-tight*
Explosion-proof *High DC rated*

For use in the electrical and electronic fields (riveting machines, welders, motors, solenoids, relays, sound systems, presses, machine tools, etc.) and as pilot devices in connection with control circuits of contactors or starters.

Fitting companions for Linemaster's Lektro-Lok, Linemaster Jr., Clipper, Linemaster Sr., Compact, Treadlite, Cadet, The Executive and the completely waterproof Nautilus, models for every conceivable footswitch application!

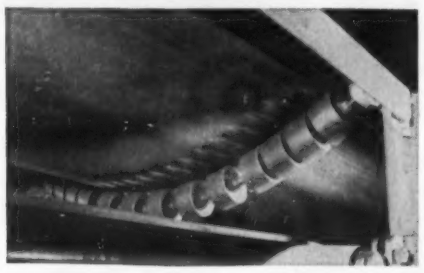
Let us quote on your specific problems; write TODAY for full catalog and price list.

LINEMASTER SWITCH CORP., 424 Woodstock Terrace Woodstock, Conn.

For more details circle NED-93 B7 on enclosed inquiry slip

CONVEYOR BELT IDLER

Handles sticky, abrasive, dusty, corrosive materials. Has only two bearings—up out of dirt.



A 2-bearing, cable suspension idler that resists dust, abrasion, corrosion and material buildup is proving superior for bulk handling in many industries. This "Limberoller" has already given *10 times* the service life of replaced steel idlers in handling abrasive foundry sands, coal, petroleum coke, potash, copper ores, copper mill tailings, iron ore, wet concrete, triple super phosphate, ammonium sulphate, sticky fertilizers. Pressure-molded neoprene or rubber discs on flexible steel cable conform to load, cushion belt, help keep belt aligned, are self-cleaning. The two bearings are out of dirt zone; have had no design failures. Many firms have adopted Limberollers as standard for all belt conveyor operations. *Details from Joy Mfg. Co., Oliver Building, Pittsburgh 22, Pa. Bulletin 26-54.* *Advt.*

▲ For more details circle **NED-94 B7** on enclosed inquiry slip ▲

Send for this *Free* SAMPLE FOLDER...

Contains 25 different test samples of high-dielectric Insulating Tubing & Sleeving.

Includes samples and descriptions of: Varglas Silicone • Varfil Sleeving and Tubing, polyester resin impregnated Fiberglas • Varglas Tubing and Sleeving • Varglas Non-Fray Sleeving • Varflo Tubing and Sleeving • Varflex Cotton Tubing and Sleeving • Syntholvar Extruded Tubing

Write today!

VARFLEX CORPORATION

510 W. Court St. Rome, N. Y.

▲ For more details circle **NED-95 B7** on enclosed inquiry slip ▲

Choose Your Wrenches as you do your friends--for life

Specify ARMSTRONG Wrenches for lifetime service, for finely balanced tools that feel right in the hand and make work easier, faster and less tiring.

Drop forged and machined from high tensile carbon or special alloy tool steels, ARMSTRONG Wrenches are heat treated, tempered and tested to an exact balance of toughness, hardness and tensile strength.

Buy wrenches which carry the trade names HI-TEN or ARMALOY. On carbon or alloy steel wrenches these trade marks are your guarantee of lifetime quality.

Write for catalog.

ARMSTRONG BROS. TOOL CO.

"The Tool Holder People"

5245 W. ARMSTRONG AVE., CHICAGO 30, ILL.

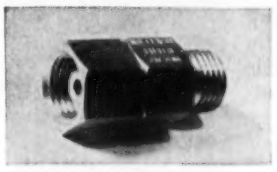
▲ For more details circle **NED-96 B7** on enclosed inquiry slip ▲

LUMINESCENT PANEL
is true area light source

Higher intensity area light source called the Panelescent lamp produces light by electroluminescence, or the excitation of phosphors placed in an electric field. Only 1/50-in. thick, lamp consists of metal coated with a dielectric which contains light-generating phosphors. Over the dielectric is a thin electrically conductive layer and a transparent insulating finish coating. Presently available is a 120-v ac model with surface brightness of 0.1 to 0.2-footlamberts and a 600-v, 60-cycle model with 2.0 to 5.0 footlambert brightness. Uses range from illuminated clock and dial faces to solid wall or ceiling lighting. Made by **Sylvania Electric Products Inc.,** Dept. A, 1740 Broadway, New York 19, N. Y.

▲ For more details circle **NED-97 B7** on enclosed inquiry slip ▲

FUEL & OXYGEN FILTER
for gas and gasoline torches



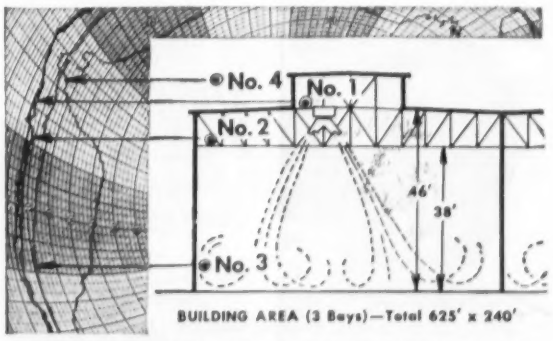
Clean acetylene, gasoline and oxygen for welding, brazing and cutting torches is assured by use of the Permetal No-Flash filter which removes particles as small as 0.001-in. It is connected between hose lines and torch without adapters. The porous bronze element prevents flash-back from damaging hose lines and equipment. Made by **Gibbs Limited,** 3401 Washington St., Boston 30, Mass.

▲ For more details circle **NED-98 B7** on enclosed inquiry slip ▲

MINIATURE TV CAMERA
equipped with lenses, mirrors

Measuring only 5¼ in. long and 2 in. diameter, this West German-made Grundig television camera is equipped with a variety of lenses and mirror attachments. Tiny spring mounted wheels enable it to examine remote, cramped areas. It has a built-in light source and can be moved by pulling or pushing on its thin remote control and power cable. Viewing can be at any distance from the camera, used with monitors having 7, 14, 17 or 21-in. picture tubes. Resolution is about 300 lines. Available from **Majestic International Corp.,** Industrial Equipment Dept., 79 Washington St., Brooklyn 1, N. Y.

▲ For more details circle **NED-99 B7** on enclosed inquiry slip ▲



BUILDING AREA (3 Bays)—Total 625' x 240'

RECORDED PROOF OF THE EFFICIENCY OF WING REVOLVING UNIT HEATERS

Over four weekly periods from February to April, a series of temperature readings was made at Budd Company's Philadelphia plant to determine the vertical temperature gradient. The following averages were recorded: No. 1 (in monitor) 75.5°F.; No. 2 (in truss chord) 73°F.; No. 3 (at working level) 66.5°F.; No. 4 (outside)—ranged between 20° and 70°F. Complete and uniform heating with Wing Revolving Unit Heaters is shown by the low temperature differential between roof and working level. *Write for Bulletin HR-6A.*

L. J. Wing Mfg. Co. 165 Vreeland Mills Rd., Linden, N.J.

Factories: Linden, N.J. & Montreal, Can. • In Europe: WANSON, Haren-Nord, Brussels, Belgium

WING REVOLVING UNIT HEATERS

▲ For more details circle **NED-100 B7** on enclosed inquiry slip ▲

Surfaces are cleaned quickly with AURAND on the job. Hardened steel cutters zip away stubborn accumulations from iron, steel, brick, concrete. Adjustable depth shoe protects surface . . . assures uniform cleaning. No special skill required. Renewable cutter heads. Two sizes in both electric and pneumatic models. Lightweight.

AURAND MFG. & EQUIPMENT CO.

1210 Ellis St., Cincinnati 23, Ohio

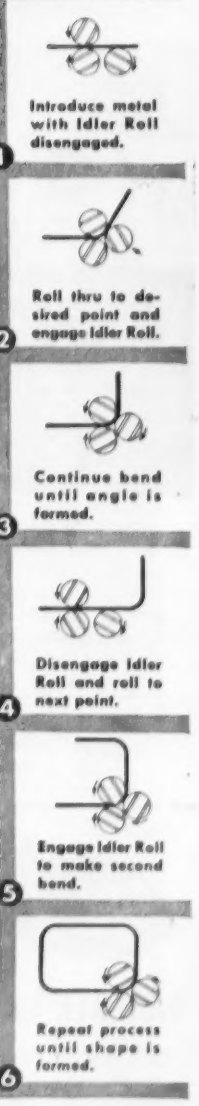
Write Dept. 14 for complete details

▲ For more details circle **NED-101 B7** on enclosed inquiry slip ▲

HOW TO FORM a rectangular shape

with the

DI-ACRO ROLLER



Forming small and large circles without flat spots and a variety of other sheet metal shapes is easily accomplished on the Di-Acro Roller with its *exclusive cam actuated Idler Roll.* Consult the yellow pages of your phone book for the name of your nearest Di-Acro distributor or write for six page instruction folder.

pronounced die-ack-ro

di-acro PRECISION METALWORKING MACHINES

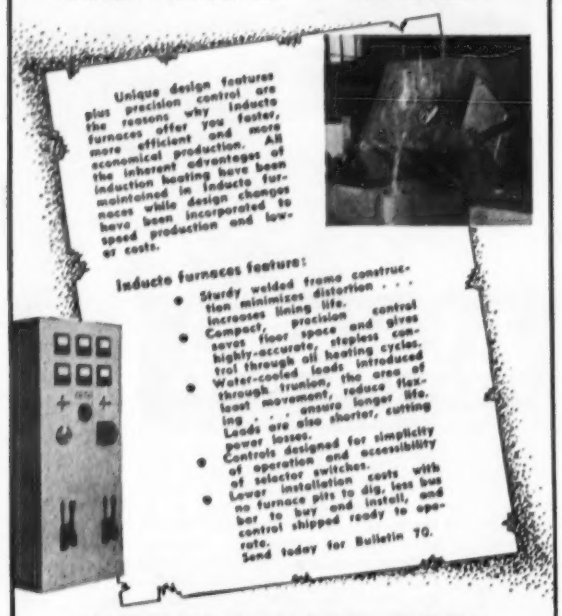
O'NEIL-IRWIN MFG. CO.

354 Eighth Ave., Lake City, Minn.

▲ For more details circle **NED-102 B7** on enclosed inquiry slip ▲

Inducto Furnaces...

HIGHER PRODUCTION — LOWER COST



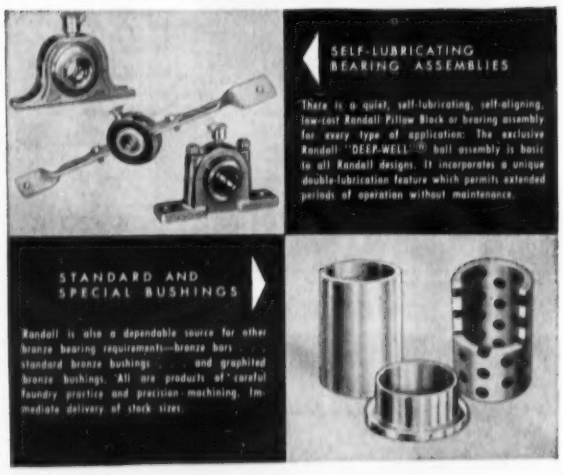
INDUCTOTHERM CORP.

412 Illinois Ave. • Delanco, N. J.

▲ For more details circle NED-103 B7 on enclosed inquiry slip ▲

let Randall solve your sleeve bearing problems

Randall manufactures a complete line of bronze sleeve bearing assemblies, standard bronze bushings, bronze bars and graphited bronze bushings. For many applications, Randall will be able to make immediate delivery from stock. Randall will work with you in solving your application problem requiring a design modification or special type bearing or bearing assembly. For the most efficient and economical solution to your sleeve bearing problems, contact Randall with your sleeve bearing requirements.



All Randall graphited bushings feature Randall's exclusive graphite formula offering the efficiency and protection of double lubrication. Randall's porous graphite mixture can hold a reserve of oil where it is immediately available to the bearing surface and will not wash away or create oil sludge. Call your Randall distributor today. He's listed in the yellow pages of the telephone directory under "Bearings."

USE THIS CONVENIENT COUPON TO OBTAIN COMPLETE DETAILS

ACO

Randall

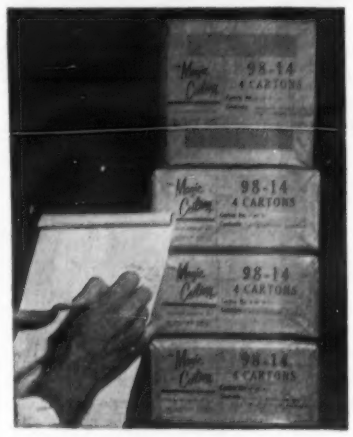
Clip this coupon to your letterhead, include your name and department and send it to Randall Graphite Bearings, Inc. We will send you the complete Randall ☐ Pillow Block and/or ☐ Bronze Bushing Catalogs. Please check your interest.

RANDALL GRAPHITE BEARINGS, INC.

1007 SOUTH GREENLAWN AVENUE, LIMA, OHIO

▲ For more details circle NED-104 B7 on enclosed inquiry slip ▲

PACKAGED LUMINOUS CEILING
allows quick interior modernization



Electrical channels for fluorescent lamps and a steel grid holding light diffusing Wakonvinyl plastic comprises the Wakefield Magic Ceiling packaged luminous ceiling. It allows overnight modernization for most interiors. Five sizes from 9 x 8 to 18 x 20 ft are stocked locally, while sizes 6 x 8 ft, or 18 x 24 to 24 x 28 ft are available through **Graybar Electric Co.**, 420 Lexington Ave., New York 17, N. Y.

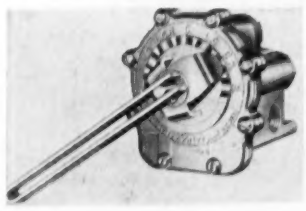
▲ For more details circle NED-105 B7 on enclosed inquiry slip ▲

TOGGLE SWITCH
offered in various colors

Plastic toggle of this switch is available in a variety of colors for coding or matching purposes. It is available in both single and double pole and center-off types with ratings up to 20 amp and 1 hp. Switch is UL-approved and is offered with screw terminals, solder lugs, quick-dismount spade type terminals or wire leads. Made by **Carling Electric, Inc.**, 507 New Park Ave., West Hartford, Conn.

▲ For more details circle NED-106 B7 on enclosed inquiry slip ▲

FOUR-WAY SELECTOR VALVE
in 1/4, 3/8 and 1/2-in. outlets



This four-way selector TeeValve accurately controls liquid flow to multiple spray manifolds or feed lines. Flow is through any one of three outlets, or any combination of these as selected by control lever. Lever is indexed to desired setting in 'off' position, then is raised to open valve. Unit is supplied in choice of 1/4, 3/8 and 1/2-in. NPT outlets. Connections are provided for pressure gage and bypass and pressure relief valve assembly. Valve can be used for all pump systems, including those using positive displacement pump. Made of aluminum and stainless steel with nylon seats, valve handles wide range of liquid chemicals. Made by **Spraying Systems Co.**, 3211 Randolph St., Bellwood, Ill.

▲ For more details circle NED-107 B7 on enclosed inquiry slip ▲

Even at the North Pole this Trap Would Never Freeze!

● Anderson Quik-Flex Thermostatic Steam Traps are guaranteed freeze-proof! Ideal for tracer lines, meter boxes, and all outdoor steam processing found in chemical, refinery, etc. Made by the most famous name among steam trap manufacturers.

GUARANTEED FREEZE-PROOF

THE V. D. ANDERSON COMPANY
division of International Basic Economy Corp.
1958 West 96th Street • Cleveland 2, Ohio

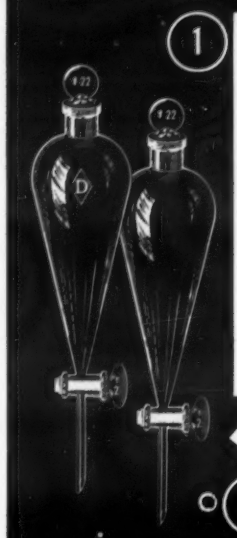
Please send your Bulletin 257 describing your Quik-Flex Steam Traps guaranteed freeze-proof.

Name _____
Company _____
Address _____
City _____ *Zone* _____ *State* _____

QUALITY STEAM TRAPS SINCE 1886

▲ For more details circle NED-108 B7 on enclosed inquiry slip ▲

BUDGETING?... make the "two-way" test



1

Whether you are responsible for budgets or not, management is always interested in reducing costs. The "TWO-WAY" Test is designed to help you select the highest quality glassware for the lowest possible cost.

THIS IS THE "TWO-WAY" TEST!

STEP 1. Collect several samples of advertised brands of laboratory glassware making sure that one of them is Doerr Diamond D Blue Line. Test these samples for the qualities and characteristics you require in your laboratory and record the results.

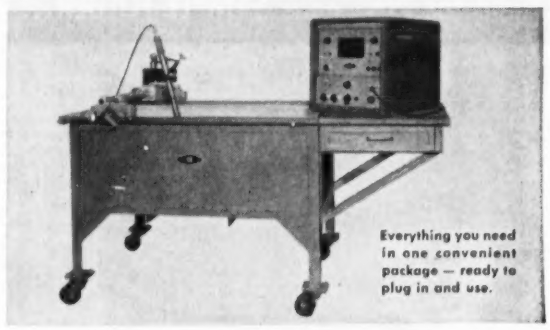
STEP 2. Compare the prices of the brands tested. You will find the Doerr Diamond D Blue Line outstrips every competitive brand in quality and sells at the lowest possible cost.

2

DOERR GLASS COMPANY
Vineland, N. J.

▲ For more details circle NED-109 B7 on enclosed inquiry slip ▲

ULTRASONIC INSPECTION



COMPLETE, THRIFTY PACKAGE
for immersed nondestructive testing of metals

- Low cost "package" unit combines all components for complete immersion testing
- Contains Immerscope, four-foot tank, search tube and rack, precision manual manipulator, manual scanning mechanism and crystals
- Ultrasound penetrates metals, defects appear as pips on cathode ray tube of Immerscope
- Ready to plug in and use

Complete information on request

INDUSTRIAL AND SCIENTIFIC PRODUCTS DIVISION
CURTISS-WRIGHT
CORPORATION • CALDWELL, N. J.

CURTISS-WRIGHT OF CANADA, MONTREAL • CURTISS-WRIGHT EUROPA, AMSTERDAM

▲ For more details circle NED-110 B7 on enclosed inquiry slip ▲

OLSON WHEEL CONVEYORS

Olson Wheel Conveyors in lightweight steel or ultra-lightweight aluminum, offer you more material handling economy and efficiency for your money. Designed by conveyor specialists. Olson units have hundreds of uses around the plant—save steps, time, labor and handle your loads safer. Easily moved, set-up or stored. Many accessories available for special-purpose jobs. Standard straight and curved sections in 12" or 18" widths in stock for immediate shipment. Get our prices before you buy.

Write for catalog No. 4000. Contains complete information on Olson Wheel, Roller and Belt Conveyors.

Olson Conveyors
SERVING AMERICAN INDUSTRY SINCE 1900

SAMUEL OLSON MFG. CO., INC.
2439 BLOOMINGDALE AVE.
CHICAGO 47, ILLINOIS
Offices in Principal Cities

▲ For more details circle NED-111 B7 on enclosed inquiry slip ▲

POWERFUL new PLUNGER

CLEARS CLOGGED TOILETS in a jiffy!

Clear messy, stuffed toilets
Cut maintenance costs with

'TOILAFLEX'
Toilet ALL-ANGLE Plunger

Ordinary plungers don't seat properly. They permit compressed air and water to splash back. Thus you not only have a mess, but you lose the very pressure you need to clear the obstruction.

With "TOILAFLEX", expressly designed for toilets, no air or water can escape. The full pressure plows through the clogging mass and swishes it down.

- Accordion-action design to flex at any angle
- Double-size cup blasts double pressure, aimed directly at obstruction
- Tapered suction-grooved tail gives air-tight fit

$2.65 Fully Guaranteed

Order from your Supplier of Hardware or Janitor Supplies

Get a "TOILAFLEX" for your home too. Positive insurance against stuffed toilet.

THE STEVENS-BURT CO., NEW BRUNSWICK, N. J.
A Division of The Water Master Company

For more details circle NED-112 B7 on enclosed inquiry slip

Ozalid Streamliner 200

full-width whiteprinting for just **$995.00!**

AT LAST—*economical printmaking in full 42-inch widths!* Here's the brand-new Ozalid Streamliner 200. This compact, low-cost table model gives you solid production capacity . . . turns out a print in seconds.

It's perfect for the small office—priced low for any budget. And it's an ideal "stand-by" for the big printroom. Use it when other equipment is out of service. Use it for short runs—without costly interruptions of volume work.

With all of these "plus" features:

- full 42-inch printmaking capacity
- compact design—only 22" high...27" deep
- simple, easy-to-operate controls
- automatic stacking
- sharp, fully detailed prints

For all the facts on the Streamliner 200, call your local Ozalid representative. His number's in the phone book, or write: Ozalid, Dept. S-2, Johnson City, N. Y.

OZALID®
First name in whiteprinting

A Division of General Aniline & Film Corporation
In Canada: Hughes Owens Company, Ltd., Montreal

For more details circle NED-113 B7 on enclosed inquiry slip

WALL-MOUNTED PYROMETER
has flexible arm and 5-in. scale

Convenience of a portable instrument and protection of a wall-mounted unit are combined in the type R-4200 pyrometer. It can be permanently located at an oven, platen, mold or other location for production checking of surface temperatures. A 5-in. scale, flexible arm and choice of 10 thermocouples in ranges from 0-300° F to 0-2000° F are offered, along with optional centrigrade equivalents and special ranges, including zero temperatures. Magnetically shielded steel case is dust, fume and splashproof. Made by **Illinois Testing Laboratories, Inc.**, 430 N. LaSalle St., Chicago 10, Ill.

For more details circle NED-114 B7 on enclosed inquiry slip

AIRCRAFT SCREWS
now have Nylok self-locking insert

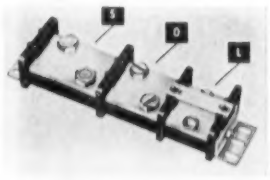
Self-locking aircraft screws which now incorporate the Nylok nylon pellet self-locking insert can save up to 85 per cent assembly time on air frames and components. Fasteners eliminate need for drilled heads, locking wires, lock washers or castellated nuts. They can be used at 250° F and are offered in many types and configurations, including the high strength EWB-22 steel aircraft bolt and the Hi-Ti titanium tension-tension fatigue bolt. Offered by **Standard Pressed Steel Co.**, Box 581, Jenkintown, Pa.

COMPARISON OF TENSILE STRENGTH
NYLOK vs Standard MS Bolt

MS 20008 with NYLOK		Standard MS 20008	
BOLT	LBS.	BOLT	LBS.
#1	29,575	A	29,400
#2	29,250	B	29,575
#3	29,400	C	29,725
#4	29,850	D	29,600
#5	29,600	E	29,810

For more details circle NED-115 B7 on enclosed inquiry slip

TERMINAL BLOCKS
rated 100 to 225 amp, 750 v



Any numerical combination of type S, O and L terminal blocks can be had in the same block, or can be combined with Curtis H, BT and BS terminal sections to provide control and power wire terminals on the same block. Types S, O and L blocks are rated 750 v ac terminal-to-terminal and terminal-to-ground. Type L, rated 100 amp., is furnished with 1/4-in. screws for No. 1 wire lugs; type O, rated 125 amp, has 5/16-in. screws for 1/0 wire lugs; and type S, rated 225 amp, has 3/8-in. screws for 4/0 wire lugs. Steel mounting brackets are zinc dichromate plated. Made by **Curtis Development & Mfg. Co.**, 3250 N. 33rd St., Milwaukee 16, Wis.

For more details circle NED-116 B7 on enclosed inquiry slip

MARSH MAKES IT!

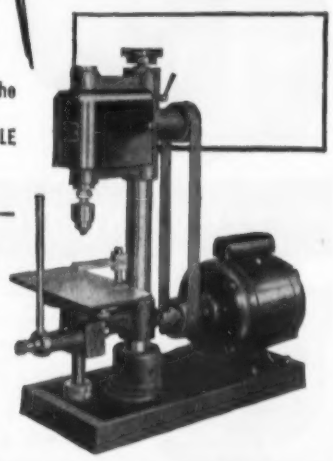
If it's a pressure gauge or dial thermometer, Marsh makes it . . . and makes it better. The types, ranges and case styles are endless. What is "special" to other instrument makers is often standard to Marsh. To know the scope of Marsh instruments—

Write for this fact-filled catalog

MARSH INSTRUMENT CO. Sales Affiliate of Jas. P. Marsh Corporation
Dept. 26, Skokie, Ill. • Marsh Instrument & Valve Co. (Canada) Ltd., 8407 183rd Street, Edmonton Alberta • Export Dept., 3501 Howard Street, Skokie, Ill.

For more details circle NED-117 B7 on enclosed inquiry slip

Now YOU CAN TAP PRECISION HOLES IN BRITTLE MATERIALS OR THIN SHEETS



Recent design change of the HAMILTON SUPER SENSITIVE, SMALL-HOLE PRECISION TAPPING MACHINE

Also extends capacity to:—
.034" x 120 minimum
1/4" x 24 maximum

YOU will want full information about this important development!

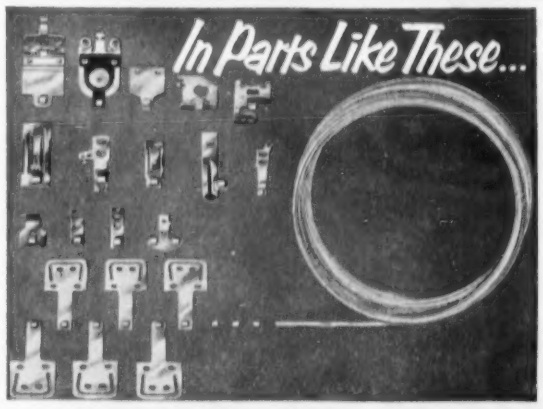
WE WILL FURNISH IT FREE

Ask for BULLETIN NO. 2464

ADDRESS
THE HAMILTON TOOL COMPANY
901 Hanover Street
HAMILTON, OHIO

IT'S A Hamilton Tool
USE IT WITH CONFIDENCE
2464

For more details circle NED-118 B7 on enclosed inquiry slip



GENERAL PLATE...
Clad Electrical Contact Tapes

Reduce Costs, Minimize Assembly Operations, Permit Miniaturization and Improve Performance

Included among the many advantages offered by the use of General Plate Clad Electrical Contact Tapes are assembly accuracy, change-over ease, design freedom, *plus* immediate and substantial cost reductions.

Basically, electrical contact tape consists of an electrical contacting face of desirable composition and contour plus an elevated or serrated backing of readily electro-weldable material. The serrated back makes possible a larger weld area assuring much greater thermal and electrical conductivity from the contact to backing member assuring exceptional performance.

The contact face is available in practically any ductile contact material either as a single metal or clad to another metal. Contact backing or supporting materials are available in steel, brass, copper, phosphor bronze, beryllium copper, nickel or monel, and aluminum. Write for complete information.

METALS & CONTROLS CORPORATION
GENERAL PLATE DIVISION
1802 Forest St., Attleboro, Mass.

For more details circle NED-119 B7 on enclosed inquiry slip

MAKE YOUR OWN SOUND MOVIES . . . THIS EASY, INEXPENSIVE WAY

Here, in one compact, portable unit is all you need to make your own sound movies.

This new Kodascope Pageant Sound Projector, Magnetic-Optical, is both a superb sound projector *and recorder.*

Take any kind of 16mm film, sound or silent, and have a magnetic striping added for about 2½¢ per foot. Then run it through your Magnetic-Optical and record *your* own sound.

Mix voice with music, add from other sound sources, record on the spot, blend automatically. Erase, alter, re-use the magnetic stripe at will. Change your message to fit special groups, as often as you wish.

And *project* every kind of 16mm film (sound or silent) with the same ease, brilliance, fine tone, and freedom from maintenance that you get from *every* Pageant.

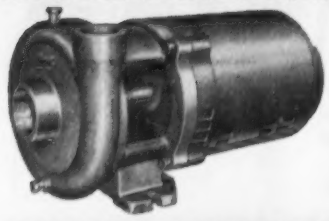
Interested? Write for full details.

EASTMAN KODAK COMPANY
Rochester 4, N. Y.

Kodak

For more details circle NED-120 B7 on enclosed inquiry slip

CLOSE COUPLED CENTRIFUGAL PUMPS
(Type E 100)

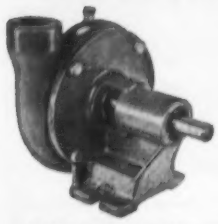


¼ HP — 1/3 HP — ½ HP
1¼" Suction, 1" Discharge Size

OUTSTANDING FEATURES:
New lightweight motor design
Mechanical pump seal
Rugged Construction
Compact, versatile unit

USES:
Refrigeration, Air Conditioning, Swimming pools, etc.

PRYCO CENTRIFUGAL PUMPS



A superior pump for long life and minimum maintenance.

OUTSTANDING FEATURES:
Double Ball Bearing
Mechanical Shaft Seals
Lifetime Lubrication
Heavy Duty Construction
Heads up to 60 feet
Big Cost Advantage

ALSO A COMPLETE LINE OF BRONZE ROTARY GEAR PUMPS

—PUMP VALUES THAT CHALLENGE COMPARISON—

E. L. PRICE PUMP CO.
Box 357, Sonoma, California
"Manufacturing Pumps Since 1932"

For more details circle NED-121 B7 on enclosed inquiry slip

WHAT'S NEW IN MOTOR CONTROL?

NOW . . . EASILY INSTALLED MAINTAINED-CONTACT PUSHBUTTONS

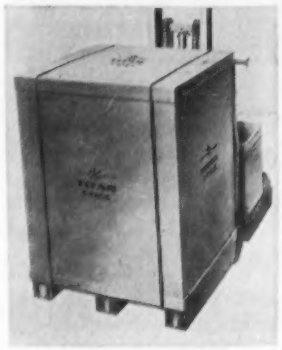
The new Cutler-Hammer complete line of heavy duty oil-tight pushbuttons has many advanced engineering features. This maintained-contact pushbutton attachment has gained rapid approval by machine designers and panel builders. Mounts in minutes . . . and it works perfectly without tedious adjusting. Neither alignment nor spacing of the pushbuttons is critical. No binding, no sticking. Be sure you have complete information on the all-new line of Cutler-Hammer pace setting heavy duty oil-tight pushbutton units. Write today on your company letterhead for the Pushbutton Handbook Pub. EL-178 . . . CUTLER-HAMMER, Inc., 1377 St. Paul Ave., Milwaukee 1, Wis.

CUTLER-HAMMER
MOTOR CONTROL
C-H

GET IT FIRST IN CUTLER-HAMMER

For more details circle NED-122 B7 on enclosed inquiry slip

BULK CONTAINER
expendable unit is self-palletized



Granular products, salts, powders, chemicals and similar materials can be shipped in the self-palletized T pack, an expendable bulk container. It is internally supported and includes a lid which can be strapped or taped on for security. Capacity is up to 1 ton, depending upon material density. It can be stowed snugly in standard boxcars and trailer trucks. Standard size of 35 x 35 x 48 in. can be varied to suit specific requirements. Container is shipped knocked down. Made by **Titan Pallet Co.,** Dept. A, 527 Madison Ave., New York 22, N. Y.

For more details circle NED-123 B7 on enclosed inquiry slip

COOLING MIST GENERATOR
for high speed machining uses

Cool high speed machining, metal drawing and forming operations are possible with the Jet-Mist generator for pinpoint application of air-liquid coolants or air-oil lubricants directly to the cutting area. It is easily attached to all types of machine tools for continuous and short run operations. Installation uses the machine tool sump pump with an airline connection for single or multijet mist spray. Equipment is available for machines without sump or sump pump. Made by **Arrow Tools, Inc.,** 1910 S. Kostner Ave., Chicago 23, Ill.

For more details circle NED-124 B7 on enclosed inquiry slip

HIGH BAY LIGHT FIXTURES
for mercury vapor bulbs

Eighteen per cent of light from two high bay uplight lighting fixtures for mercury vapor lamps illuminates upper areas to decrease contrasts. Maintenance costs are minimized as lamps burn cooler and longer, and fixtures stay cleaner due to "chimney sweep" action of air currents. Shielding is 35 degrees from bottom of bulb. Aluminum reflector for 400-w mercury vapor bulb is 20 in. diameter, while unit for 1000-w bulb is of same material and has 24-in. diameter. Both are finished in Alumalite, with Alzak on request. Made by **Spero Electric Corp.,** Dept. AW, 20500 St. Clair Ave., Cleveland 17, O.

For more details circle NED-125 B7 on enclosed inquiry slip

PREVENT LADDER SLIPPING ACCIDENTS

UNIVERSAL LADDER SHOES

UNDERWRITERS' APPROVED
for all types of floors and surfaces

Combination cord-rubber tread holds firm to wet or dry surfaces, ridges cut through oil and grease to provide a secure grip. Sharp spike for soft surfaces, snow and ice. Adopted by many companies for general service.

WRITE FOR BULLETIN NO. 9

IPCO *Safety Equipment for all Industries*
INDUSTRIAL PRODUCTS COMPANY
2807 N. FOURTH STREET • PHILADELPHIA 33, PA.

For more details circle NED-126 B7 on enclosed inquiry slip

CEILCOTE E-900

THE *One-coat* HEAVY DUTY PROTECTIVE COATING

For Structural Steel • Tanks • Stacks Walls and Floors • Tank Truck Exteriors

Outstanding resistance to chemicals, acids, alkalies and solvents . . . withstands extreme weathering . . . can be applied by brush or roller coating . . . dries to touch in six hours.

SERIES E-900 COATINGS are high solids modified epoxy formulations which result in superior toughness, resistance to abrasion and excellent adhesion to any clean surface.

Regularly available in . . . clear . . . white . . . gray . . . and sea-foam green. Because of high solid content, 95% of the applied thickness is converted to a protective film.

Write today for Technical Bulletin E-900

7900-CO

THE CEILCOTE COMPANY INC.
4838 Ridge Road • Cleveland 9, Ohio

For more details circle NED-127 B7 on enclosed inquiry slip

HEAT-CONTROL PROBLEMS
IN YOUR INDUSTRY,
MR. DESIGNER?

BEST ANSWER USUALLY COMPACT, TOUGH, ACCURATE FENWALL THERMOSWITCH® UNIT.

WE HAVE PROVED THAT TO DESIGNERS IN ALMOST EVERY INDUSTRY, INCLUDING, PROBABLY, YOURS.

VERY ADAPTABLE—24,000 VARIATIONS AVAILABLE ON BASIC THERMOSWITCH IDEA.

Designers — Write Fenwal Inc., 82 Pleasant St., Ashland, Mass., for THERMOSWITCH Folder.

Fenwal

Controls Temperature . . . *Precisely*

For more details circle NED-128 B7 on enclosed inquiry slip

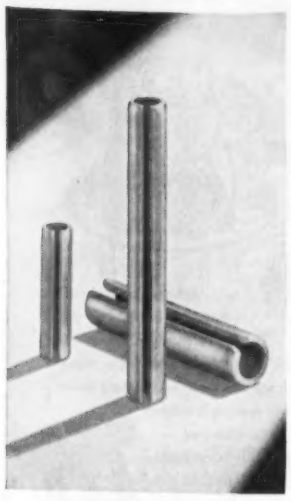
ROTH molds SILICONE PARTS and SPONGE

If you need parts that require an extreme temperature range, −100°F to +500°F, a high resistance to compression set and an exceptional resistance to oxidation, then Silicone is the answer. Let Roth's 34 years of experience help you solve your problems.

Send for specifications
ROTH RUBBER COMPANY
1860 South 54th Avenue • Chicago 50, Illinois

For more details circle NED-129 B7 on enclosed inquiry slip

SEL-LOK spring pins eliminate tapping, peening, milling



SEL-LOK spring pins are installed in plain drilled holes in one simple driving operation. They lock by spring action. Use them as axles, keys, hinge pins, cotter pins, pivot or stop pins. A SEL-LOK stays put, once you've installed it. It resists vibration and shock. It can be removed easily with a drift pin or punch, and reused again and again. These versatile pins are stocked by your authorized industrial distributor in sizes ranging from 1/16 by 3/16 to 1/2 by 5 in., in heat treated alloy or corrosion resistant steel. Write us for Bulletin 2014 and samples. Sel-Lok Spring Pin Division, STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

STANDARD PRESSED STEEL CO.
SEL-LOK® SPRING PIN DIVISION SPS
JENKINTOWN PENNSYLVANIA

For more details circle NED-130 B7 on enclosed inquiry slip

DOWNS SAFETY GRABS ...GRIP ANYTHING!

FOR CRANES AND HOISTS...
Material lifting equipment will do more work—faster, easier—when you have the proper "grabs" for every type of load. No matter what your hoists are handling—pipe, rails, drums, plate or structural steel, stone, timber, boxes or odd-shaped objects of any description—there's a DOWNS *Safety* Grab that will enable you to do it faster, easier *and* safer. Learn new short cuts to greater efficiency for YOUR plant with DOWNS' *complete line* of *Safety* hoist grabs!

Write for Free Illustrated Cat. 200B-6 Today!

DOWNS CRANE & HOIST CO.
MECHANICAL ENGINEERS

For more details circle NED-131 B7 on enclosed inquiry slip

"SAND WIPER" *rammer*

Write for Form 5216 describing both bench and floor units or ask for a demonstration in your plant.

Ingersoll-Rand
11 Broadway, New York 4, N.Y.
8-508

For more details circle NED-132 B7 on enclosed inquiry slip

TIME DELAY RELAY
3 millisecond to 30 second range

Hermetically sealed type EHS electronic time delay relay for guided missile, aircraft and military equipment requires no warm-up and consumes as little as 1 w. Circuit employs cold cathode tubes which are unaffected by vibration. Preset time delays range from 3 milliseconds up to 30 seconds. Timer measures 2 x 2¼ x 3⅛ in. and weighs 9 oz. Made by **G. C. Wilson & Co.**, Dept. NED, 1915 Eighth Ave., Huntington, W. Va.

For more details circle NED-133 B7 on enclosed inquiry slip

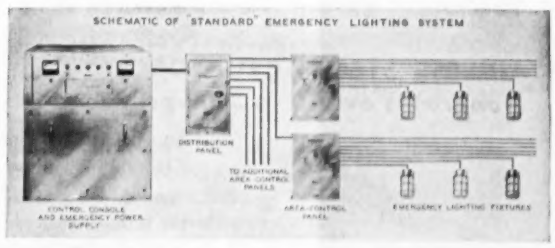
EQUIPMENT MOUNTING LEVELER
has nonmarking neoprene pad

Improved style FB leveler for use on office partitions, office and electronic equipment, scales, display cases, air conditioners, lab equipment and appliances now has a pad of gray, nonmarking neoprene. Pad can be 5/8 or 1/2-in. thick for effective vibration absorption. Hole in cushion acts as vacuum cup to hold appliance or equipment in place. Levelers are available in both 1/2-13 and 5/16-18 thread sizes with zinc-plated feet. Made by **Ohio Nut & Bolt Co.**, 14 First Ave., Berea, O.

For more details circle NED-134 B7 on enclosed inquiry slip

EMERGENCY LIGHTING SYSTEM
operates when regular power fails

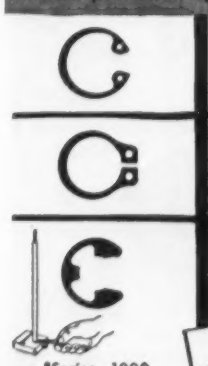
This UL-approved centralized emergency lighting system for public and private buildings constantly supervises itself. It not only reports any fault to the system by flashing lights and buzzers, but sounds an alarm when an emergency lamp is removed from its socket. Emergency lights go on automatically the instant regular power fails and go off when power is restored. Long-life nickel-cadmium 32-v battery is automatically maintained at full capacity by constant trickle recharging. Made by **Standard Electric Time Co.**, Dept. 200, Springfield 2, Mass.



For more details circle NED-135 B7 on enclosed inquiry slip

INDUSTRIAL RETAINING RINGS

. . . the guaranteed retaining rings that provide inexpensive shoulders for positioning product components on grooved shafts and housings.
. . . the guaranteed retaining rings that reduce production and assembly time, labor and costs; cut product weight and bulk.



SERIES 3000 Internal rings (NAS 110) applied axially into housings.

SERIES 3100 External rings (NAS 31) applied axially to shafts.

SERIES 1000* Open-type rings applied radially to shafts.

*Series 1000 rings may be ordered stacked for easy dispensing.

JUST PUBLISHED Illustrated Catalog
Write today for copy and ring samples.

INDUSTRIAL RETAINING RING COMPANY
originators of modern retaining ring dispensing

Dept. NE-2 • 57 Cordier Street
IRVINGTON 11, NEW JERSEY

For more details circle NED-136 B7 on enclosed inquiry slip

The Hamilton No. 1-B Precision, Small-Gear Hobbing Machine. Generates precision spur, spiral, and bevel gears, face gears, worm gears, and worms. Maximum diameter of work piece, 6".

SMALL PRECISION
Gears without tears

HERE'S WHY — The Hamilton Precision, Small Gear Hobbing Machine, the hobber with a "reserve of accuracy," regularly holds work spindle and hob spindle run out to less than .0002", work spindle and tailstock spindle alignment to less than .0002". *And this standard of workmanship is maintained throughout the machine.*

FURTHER — Speed, feed, and indexing each can be selected individually and independently. *THINK* OF THE TIME TO BE SAVED BECAUSE OF THIS *ONE* FEATURE!! And scores of additional features are described in our Gear Hobber Bulletin No. 2487 which we will be glad to furnish to you FREE. Address:

THE HAMILTON TOOL COMPANY
901 Hanover Street
HAMILTON, OHIO

IT'S A Hamilton Tool
USE IT WITH CONFIDENCE
2487

For more details circle NED-137 B7 on enclosed inquiry slip

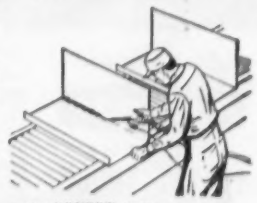
For the compound melting or dispensing tank *that has never been built before...*

come to Sta-Warm

Ask Sta-Warm engineers to survey and analyze your compound melting set up with a view to

- . . . reducing costs
- . . . maintaining steadier output
- . . . increasing hourly output
- . . . holding melted material to closer tolerances until dispensed or applied.

The broad experience of Sta-Warm compound melting engineers in this highly specialized and complicated field can be made available to you upon inquiry. Their service extends far beyond the recommendation of standard models of Sta-Warm melting equipment. It begins with plant and production survey, if you desire. Inquire today, briefly summarizing your problem. No obligation, of course.



Sta-Warm Electric Co.
130 N. Chestnut Street
Ravenna, Ohio

Sta-Warm
ENGINEERED EQUIPMENT for melting and dispensing heated compounds

For more details circle NED-138 B7 on enclosed inquiry slip

Arlin **PARTS FEEDERS**

Offer You

Full Electronic Control
Complete Orientation
Large Storage Capacity
Higher Speeds
Longer Life
Greater Economy

All in One Unit

Model 329-PFO

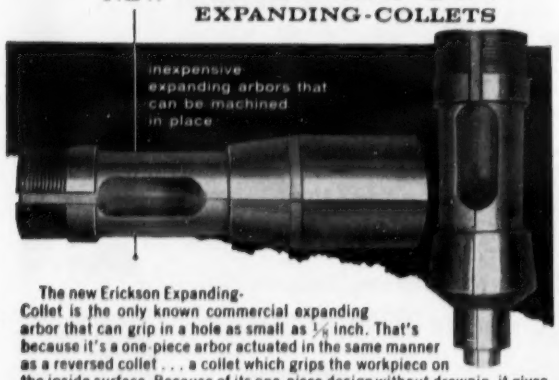
will AUTOMATICALLY FEED . . . on ELECTRONICALLY CONTROLLED flow of COMPLETELY ORIENTED PARTS . . . at SPEEDS up to 20,000 per hour . . . Rate of feed AUTOMATICALLY REGULATED . . . assuring perfect parts flow coordination between ARLIN PARTS FEEDER and your equipment . . . which now operates completely automatic . . . and at a NEW LOW in PRODUCTION COST

WRITE US YOUR FEEDING NEEDS—SEND FOR HOPPER CATALOG

Arlin PRODUCTS, INC.
13543 AUBURN AVE DETROIT 23, MICHIGAN

▲ For more details circle NED-139 B7 on enclosed inquiry slip ▲

NEW **ERICKSON** EXPANDING-COLLETS



The new Erickson Expanding-Collet is the only known commercial expanding arbor that can grip in a hole as small as 1/16 inch. That's because it's a one-piece arbor actuated in the same manner as a reversed collet . . . a collet which grips the workpiece on the inside surface. Because of its one-piece design without drawpin, it gives maximum wall thickness and full gripping power equal to that of a collet.

That means you can convert your machine to internal chucking by merely inserting the new Erickson Expanding-Collet. And since it is machined in place on the machine, it gives greatest possible accuracy . . . can be re-machined for new jobs . . . solves the rush-order problem.

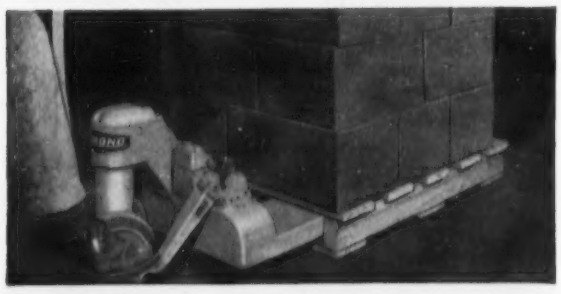
Order a stock of new Erickson Expanding-Collets. They'll save your time, your temper and your money. AA-4906

ERICKSON TOOL COMPANY
2308-2 Hamilton Avenue • Cleveland 14, Ohio

Collet Chucks • Floating Holders • Tap Chucks • Indexers • Tap Holders
Air-Operated Chucks • Expanding Mandrels • Special Holding Fixtures

▲ For more details circle NED-140 B7 on enclosed inquiry slip ▲

Makes Light Work of 1-Ton Loads



Lightweight
RAYMOND
Hydraulic PALLET TRUCK

LETS ONE MAN handle 2,000 lb. loads with ease because hydraulic power does heavy lifting. Frees 2 or 3 men for other work. Lightweight makes it easy to maneuver and pull, results in less operator fatigue. Easy pallet entry, foot-pedal lifting and lowering. Built for years of use . . . and abuse.

The RAYMOND CORPORATION
4114 Madison St., Greene, N.Y.

FREE . . . Send latest Raymond Lightweight Pallet Truck literature.

NAME TITLE
COMPANY
STREET
CITY STATE

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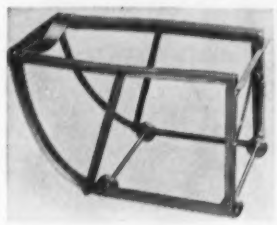
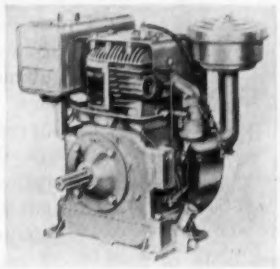
BARREL CRADLE TRUCK prevents tipping of barrel



Curved top rail of this barrel cradle truck holds a wooden hogshead or barrel firmly in position, preventing dangerous tipping. Other safety features include nonskid devices directly forward of front wheels on the rocker, and a safety catch on the nose piece. Latter prevents barrel from sliding during loading. Truck has an 18-in. wheel base with 3-in. diameter wheels placed on straight axles. It places barrel bung 22 in. high. Made by **Morse Mfg. Co.**, 727 W. Manlius St., East Syracuse, N. Y.

▲ For more details circle NED-142 B7 on enclosed inquiry slip ▲

GASOLINE ENGINE develops 7 hp at 3600 rpm



Added to Briggs & Stratton line of single cylinder, four-cycle gasoline engines is this model 19 series which has 3-in. bore and 2⅝-in. stroke with piston displacement of 18.56 cu in. Engine develops 7 hp at 3600 rpm. It weighs only 78 lb. Model 19-B of series has crankshaft mounted in two shielded ball bearings; model 19-FB has direct-mounting crankcase, faced and tapped, with crankshaft mounted in two shielded ball bearings; model 19-R6 features 6:1 gear reduction; and model 19-FBL is equipped with manually operated clutch. Electric starter-generator, starting crank, remote governor and throttle controls, fuel pump, automatic choke and ignition shielding comprise special equipment. Made by **Briggs & Stratton Corp.**, Box 702, Milwaukee 1, Wis.

▲ For more details circle NED-143 B7 on enclosed inquiry slip ▲

STAINLESS STEEL ACTUATOR operates over 0 to 3000-psi range

Built to operate within a −67 to 600° F range, this stainless steel actuator is hydraulically operated by pressures from 0 to 3000 psi. It can also be adapted to pneumatic operation. Unit pictured has a 7-in. stroke, 16-in. length and 2⅜-in. diameter, but the basic design can be altered to suit specific performance and space requirements. High temperature seals are incorporated. Made by **Ex-Cell-O Corp.**, Aircraft Div., 1216 Oakman Blvd., Detroit 32, Mich.

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HAVE YOU TRIED...

FLIGHTEX GLASS CLOTH

AND

FLIGHTEX FLIGHTEX FABRIC INDUSTRIAL FABRICS

If you use special industrial fabrics and mechanical tapes, you'll find Flightex a dependable source of supply. Our staff of engineers is at your service to help solve your fabric and tape problems.

Write for Complete Information

FLIGHTEX FABRICS, INC.
93 Worth Street • New York 13, N. Y.

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WHAT... NO UNIVERSAL DRILL BUSHINGS?

Wherever there are holes to drill using jigs or fixtures, it pays to specify Universal drill bushings. Machined from finest quality steel, Universal bushings have super-finished bores which lengthen tool life and reduce bushing wear over long production runs. Knurled heads provide quick, sure grip. Blended radii on top-inside diameters help prevent tool hang-up and breakage. Standard sizes and lengths in stock for immediate delivery.

UNIVERSAL ENGINEERING CO.
FRANKENMUTH 5, MICHIGAN

200

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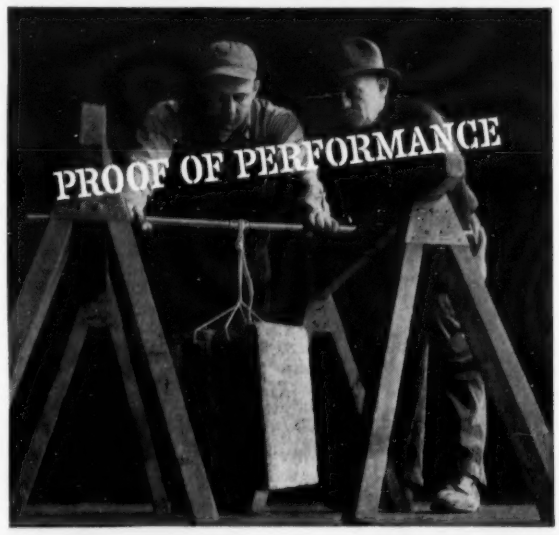
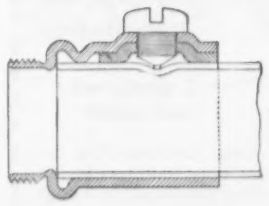


Bending load test shows strength and grip of NATIONAL ELECTRIC E.M.T. fittings

Two lengths of ½" E.M.T. were joined with an NE coupling (all that was needed was a screwdriver) and cinder blocks weighing 54 lbs. were suspended from the joint. The entire assembly was then rolled along the supports with no effect on the coupling's efficiency . . . a convincing demonstration of the strength of the NE fittings. Especially since the Underwriters' require only a thirty pound weight for this test.

National Electric E.M.T. connectors and couplings are safe and strong because of the sturdy one-piece pressed steel body and outstanding holding action of the patented NE embedding screw. The contact of the screw in the tubing wall constitutes a safe permanent ground. All fittings are galvanized for full protection against corrosion.

National Electric E.M.T. connectors and couplings are the easy way to assure a quality, uniform installation. Try them . . . they're sold by the leading electrical distributors everywhere.



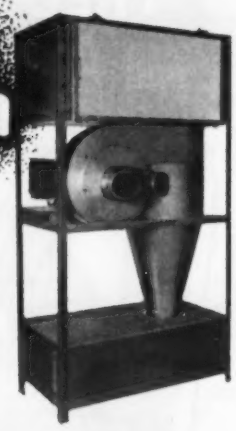
The outstanding holding action and vibration resistance of National Electric Fittings are obtained when the tip of the patented screw is driven home and embedded in the tubing wall.
Patent No. 2,455,180

National Electric Products
PITTSBURGH, PA.
2 Plants • 11 Warehouses • 35 Sales Offices

▲ For more details circle NED-147 B7 on enclosed inquiry slip ▲

EFFICIENT–LOW COST

Dust Collection



Easy installation . . . efficient low-cost operation . . . simplified maintenance, make Dustkop *FIRST* among equipment to collect most all industrial dusts. There are Dustkop models to eliminate your dust problems . . . that are space saving, self-contained units, or exhaust type for rafter, ceiling or outside location. Write for descriptive literature.

DUSTKOP® STOPS DUST

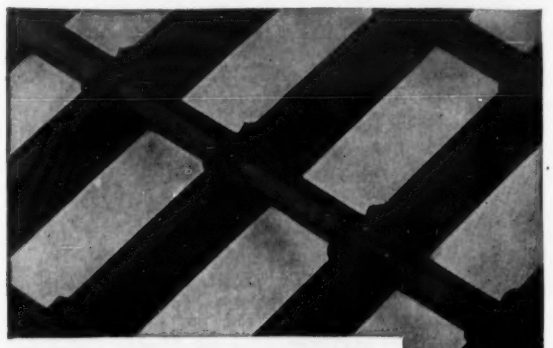
37 STANDARD MODELS TO CHOOSE FROM

• READY TO USE

Also a Complete Line of Mist Collectors

AGET MANUFACTURING COMPANY
1396 E. CHURCH ST. • ADRIAN, MICHIGAN

▲ For more details circle NED-148 B7 on enclosed inquiry slip ▲



Gary GRATING
with the
HEXAGONAL CROSS BARS
Resistance Welded

FREE SAMPLE
Write for paper weight size sample and catalog N-27

ROCKWELL SPRING & AXLE CO.
Standard Steel Spring Division
4017 EAST SEVENTH AVE., GARY, INDIANA

▲ For more details circle NED-149 B7 on enclosed inquiry slip ▲

A NEW FASTENER...A NEW TYPE OF FASTENER

DIE-CAST ROUND-HEAD THUMB NUTS & SCREWS
with GRC's exclusive
WIDE GRIP feature

3 standard diameters: ½", ⅝", ¾"; standard thread sizes; #4 through ¼"; both open-end and closed-end thumb nuts; thumb screws with and without shoulders. Generous width assures firm, comfortable grip; rounded edges.

Mass produced in rust-proof zinc alloy at low cost, with eye appeal to help sell your product.

As in all other GRC quality fasteners—wing nuts, cap nuts, wing screws—threads are clean and accurate.

Write Today for samples, prices & bulletin, or ask for quote on special needs.

GRIES World's Foremost Producer of Small Die Castings

GRIES REPRODUCER CORP.
143 Beechwood Ave., New Rochelle, N. Y. • NEw Rochelle 3-8600

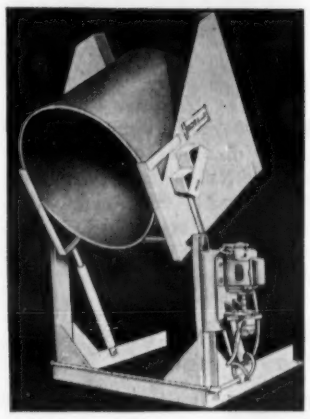
▲ For more details circle NED-150 B7 on enclosed inquiry slip ▲

REFERENCE VOLTAGE SUPPLY
converts ac to stable dc voltage

When connected to 50 to 400-cycle 115-v source, the improved constant reference voltage supply has a reference potential adjustable from 0 to about 87 v. It maintains the desired voltage with a stability of better than 0.2-per cent with any load not exceeding 1 ma with line voltage changes from 90 to 135 v. Unit is designed for adjustable speed motor drives and direct current servo systems, but can be used to replace wet or dry cells and some electronic regulating systems. It plugs in a standard eight-pin socket. Made by **Servo-Tek Products Co.,** Dept. ED, 1086 Goffle Rd., Hawthorne, N. J.

▲ For more details circle NED-151 B7 on enclosed inquiry slip ▲

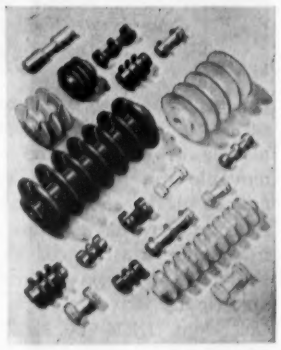
HYDRAULIC DUMPER
elevates 2000 lb up to 60 in.



Twelve-volt battery or conventional power line can be used to drive the Tubar twin cylinder hydraulic dumper. It will elevate loads up to 2000 lb at heights up to 60 in. Splashproof and explosionproof constructions are optional. Suited for varied material handling uses, it is adaptable for dumping drums, vats, boxes, box trucks and specially shaped containers. Made by **Uhrden, Inc.,** 508 Grant St., Dennison, O.

▲ For more details circle NED-152 B7 on enclosed inquiry slip ▲

CYLINDRICAL BOBBINS
custom made of various materials



Epoxy resin, nylon and Teflon are among the many plastics from which custom-formed bobbins can be made in any cylindrical shape and diameters from ⅛ to ⅞-in. Lengths can be up to 7 in. Production requires no molds, minimizing cost and speeding delivery. Made by **Orange Products, Inc.,** Dept. NED, 554 Mitchell St., Orange, N. J.

▲ For more details circle NED-153 B7 on enclosed inquiry slip ▲

SPRAYING SYSTEMS
SPRAY NOZZLES
better in *every* way

DESIGN—based on advanced research and engineering.
CAPACITIES—the most complete nozzle selection in the field.
TYPES—full cone, hollow cone, flat spray, square spray, straight stream and pneumatic atomizing.
MATERIALS—brass, stainless steel or any other required material.
IDENTIFICATION—all nozzles clearly stamped for easy identification and re-ordering.
PROMPT SERVICE—inventory of over 12,000 TYPES maintained for prompt delivery
Whatever your need, you will find Spraying Systems products and service of real advantage.
Write for Catalog 24

SPRAYING SYSTEMS CO.
3211 Randolph Street • Bellwood, Illinois
ADVANCED SPRAY NOZZLE DESIGN FOR NEW DIMENSIONS IN CONTROL AND PERFORMANCE

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PORTELVATOR®
The Handy HAMILTON Portable, Elevating Table

5607

NEW DEVELOPMENTS PROVIDE EASY MOVEMENT

MORE SERVICE for LESS MONEY than ANY Other Unit of Equipment

Four-Wheel and Six-Wheel Models

of SHEETS PLATES BARS TUBES PIPES TOOLS DIES FIXTURES ALL COMPACT HEAVY LOADS

4 table surfaces
3 point support

NEW, FREE LITERATURE TELLS ALL! Ask for Bulletin P-5607. Address The Hamilton Tool Company, 901 Hanover Street, Hamilton, Ohio.

UNOBSTRUCTED PERIMETER • WORK FROM ANY SIDE

IT'S A Hamilton Tool
USE IT WITH CONFIDENCE

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Easy Does It

BRECO®

Pushomatic®
QUICK COUPLINGS

Just one hand—a simple push—no twist or turn—and the Pushomatic automatically makes a positive leakproof seal for applications up to 10,000 PSI. Made with single or double integral check valves which automatically shut off pressure while connecting. Free swivelling ball-bearings prevent twisting or kinking of lines.
Made in a variety of styles and types for air, hydraulic, and industrial fluids in sizes from ⅛" through ¾".
Straight through quick couplings from ¼" through 3".

Call our nearest office or write for Bulletin 1475D

"Where *Good Connections* Count"®

BRECO division
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Baltimore—Camden, N. J.—Chicago—Cleveland—Los Angeles—New York—Providence—Montreal—Toronto

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2 to 4 times faster

BOSTITCH H2B STAPLING HAMMER
speeds light nailing jobs by two to four times compared to conventional hammers and nails. Cuts costs as much.

It's light in your hand and fits your fist. Its rugged construction takes years of pounding. One loading lets you swing 160 staples securely into place.

Your Bostitch Economy Man will show you the H2B and other tools to cut your costs. Look under "Bostitch" in your phone book, or write for free bulletin to Bostitch, 682 Mechanic St., Westerly, R. I.

Fasten it better and faster with BOSTITCH
STAPLERS AND STAPLES

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In Your Plant

THERE ARE PICTURES LIKE THIS

If YOU HAVEN'T CHANGED TO THE SABIN BARREL TRUCK

Sabin ONE MAN way of handling barrels and drums saves labor.

This method is simple. You run truck up to container, hook on at top and pull back on handle to pick up loads weighing as much as 800 pounds.

Third Wheel Feature gives better balance—and makes handling safer, too.

WRITE FOR BULLETIN NO. 48-A
Sales representatives wanted in several territories.
THE SABIN MACHINE CO.
6536 Carnegie Ave.
CLEVELAND 3, OHIO

For more details circle NED-158 B7 on enclosed inquiry slip

NEW!

Wells Roto-Veyor
AUTOMATIC BAR FEED

The Wells Roto-Veyor is an entirely new concept in automatic bar feeds. Designed specifically for use with the Wells Model 1200 Band Saw, the Roto-Veyor converts it into a heavy duty completely automatic cut-off machine.

All conveyor feed rollers are mechanically powered—electrically controlled. The Roto-Veyor is capable of unlimited projection length. Feed mechanism and stock clamping action is synchronized with the saw to provide accurate repetitive cutting.

The Roto-Veyor will improve the saw's efficiency, save time, and reduce production cutting costs. *Write today for complete information.*

Wells

The Pioneers of Horizontal
METAL CUTTING BAND SAWS
WELLS MANUFACTURING CORPORATION
1313 Harding St. Three Rivers Mich.

For more details circle NED-159 B7 on enclosed inquiry slip

for hundreds of packaging applications use...

AVERY PRESSURE-SENSITIVE LABELS

Your products and your packages *make their own sales pitch* with Avery pressure-sensitive labels. Important or exclusive features, "use" information, package contents, guarantees, trademarks, nameplates and approval seals, instructions, merchandising aids and pricing are but a few of the many ways you can use Avery labels to *build sales!*

With Avery electric dispensers labeling is as much as 5 times faster than with ordinary methods!

Avery labels are self-adhesive... unaffected by heat or humidity and stay fresh-looking indefinitely. Mail the coupon today for complete information.

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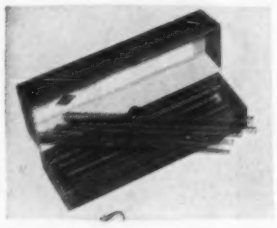
☐ More information, please... and free samples.
☐ Please have the Avery man call.

NAME
COMPANY
ADDRESS
CITY ZONE STATE
OUR BUSINESS IS:

For more details circle NED-160 B7 on enclosed inquiry slip

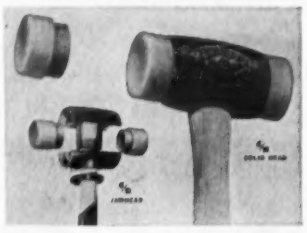
DIE SPRINGS
assortment has 40 wire sizes



Die spring assortment No. 40 contains 40 different wire sizes in eight spring diameters from 3/32 to ½-in. They are 10 in. long and have open ends. Refill packages of 12 springs of a size are also available. Springs up to 0.075-in. are wound from music wire, while larger sizes are carbon steel. Made by **Producto Machine Co.**, 965 Housatonic Ave., Bridgeport 1, Conn.

For more details circle NED-161 B7 on enclosed inquiry slip

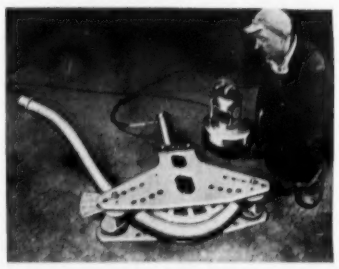
NYLON-FACED HAMMERS
are nonmarring and sparkproof



Jawhead and solid head soft-striking hammers are now equipped with molded nylon faces which possess long wearing qualities and resistance to acids, oils and moisture. They can be replaced when worn, and will not chip, spark, mushroom or mar polished or painted finishes. Outside diameter of the face is flush with the head casting. Nylon faces are interchangeable with compressed water buffalo rawhide faces which are still available. Made by **Chicago Rawhide Mfg. Co.**, 1249 Elston Ave., Chicago 22, Ill.

For more details circle NED-162 B7 on enclosed inquiry slip

PIPE & CONDUIT BENDERS
3 and 4-in. hydraulic models



Optik-Angle gage which speeds making 180-degree bends, double offsets, compounds and repeat bends is a feature of 3 and 4-in. hydraulic pipe and conduit benders. A 90-degree bend in pipe through 3 in. can be made with one stroke of the ram and in three setups in 4-in. pipe. S-137, S-138, S-139 and S-140 models are constructed of aluminum and have removable top plates for easy pipe positioning. Tool can be used in any position, including overhead. The 3-in. benders have a ram stroke of 10 in. and the 4-in. bender a stroke of 13 in. All have built-in self-retracting springs. Various models have hand and electrically driven pumps. Made by **Blackhawk Mfg. Co.**, Dept. DEN-100, 5325 W. Rogers St., Milwaukee 46, Wis.

For more details circle NED-163 B7 on enclosed inquiry slip

S-1085 Bar with S-1084 Fastener for Signal Corps chests.

for transit case and chest hardware to exact government specifications

see

J. H. SESSIONS & SON

Write for catalog of hardware for Air, Signal and Engineer Corps Transit Cases and Chests, and other applications where government specifications must be met.

J. H. SESSIONS & SON
289 RIVERSIDE AVE., BRISTOL, CONN.

For more details circle NED-164 B7 on enclosed inquiry slip

FREE SAMPLES and APPLICATIONS of INDUSTRIAL FELT*

*made to S.A.E. and Federal Govt. Specifications

See why CONTINENTAL FELT fills hundreds of jobs daily

SEE HOW FELT FITS IN WITH YOUR PRODUCTS

Ask for booklet G

CONTINENTAL FELT COMPANY, INC. 1905
22-26 WEST 15th STREET NEW YORK 11, N. Y.

For more details circle NED-165 B7 on enclosed inquiry slip

ACCO products

The WRIGHT Hoists for Dependability

WRIGHT Safeway Hand Hoists
(Capacities from ½ to 50 tons)

WRIGHT Safeway Hand Hoists are available in 12 different sizes and capacities to meet the widest range of plant lifting operations.

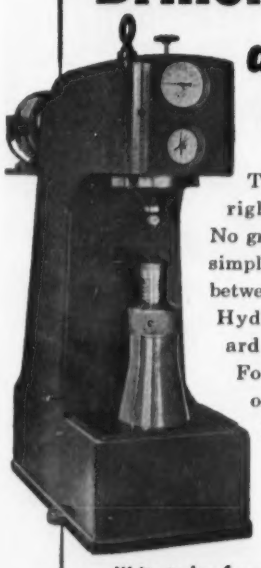
All vulnerable parts are enclosed in high grade analysis steel housing. This sealed construction makes them ideal for use in dusty or high temperature indoor conditions or for cold and wet exposure outdoors.

for complete information on the WRIGHT Safeway line of hoists send for Bulletin DH-164B

ACCO
Wright Hoist Division
AMERICAN CHAIN & CABLE
York, Pa., Atlanta, Chicago, Denver, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, San Francisco, Bridgeport, Conn.
Better Value

For more details circle NED-166 B7 on enclosed inquiry slip

Brinell Testing at Production Line Speeds



Test round or flat parts fast, right in the production line. No grinding necessary. Operator simply notes that needle reads between pre-set tolerance hands. Hydraulically applied standard Brinell loads are used. Foot control allows operator to test parts as quickly as he can move them through.

Long stroke models also available.

Write today for more information

DETROIT TESTING MACHINE COMPANY
9394 Grinnell Avenue, Detroit 13, Michigan

For more details circle NED-167 B7 on enclosed inquiry slip

KESTER SOLDERING FLUXES can be had in 160 different formulae, all widely proved by actual industrial use. Whatever your needs, we can supply a Flux that will give the exact results required. Kester Fluxes are available in the usual containers from 5 gallons to a pint.

Write today for Complete Flux Brochure

KESTER SOLDER COMPANY

4249 Wrightwood Avenue, Chicago 39, Illinois
Newark 5, New Jersey • Brantford, Canada

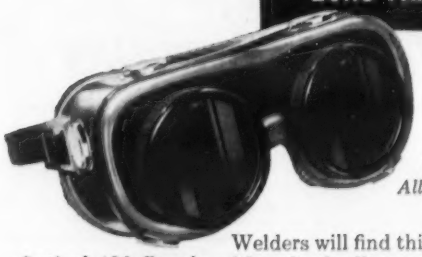
For more details circle NED-168 B7 on enclosed inquiry slip

the **FELTERS** company
224 SOUTH STREET, BOSTON 11, MASS.
Manufacturers of Felt and Felt Products
REPRESENTATIVES IN ALL PRINCIPAL CITIES

For more details circle NED-169 B7 on enclosed inquiry slip

NEW!

AO Flexible Mask Welding Goggle with Filter Lens Adapter



(Fits Over All Prescription Glasses)

Welders will find this American Optical 486 Goggle with soft vinylite mask remarkably comfortable. Feels smooth against the face — fits tighter and closer — leaves no open gaps. Indirect ventilation louvers eliminate fogging. Rim holder is black, flame-resistant plastic, adapted to accommodate our standard lens ring and regular 50 mm. round filter lenses and cover lenses. Rings and lenses easily removed and replaced. Goggle fitted with Noviweld filter lenses, shades 3, 4, 5, 6.

Your nearest American Optical Safety Products Representative can supply you.

American Optical COMPANY
SAFETY PRODUCTS DIVISION

Always Insist on the AO Trademark on Lenses and Frames

SOUTHBRIDGE, MASS. • BRANCHES IN PRINCIPAL CITIES

For more details circle NED-170 B7 on enclosed inquiry slip

MOLDED PLASTIC WHEELS
sizes with 300-3000 lb capacities

Macerated heavy weave canvas duck, impregnated with phenolic resin compounds and molded under extreme heat and pressure, is used in making Plastex wheels. They resist mild acids, oils and greases, protect the floor under extreme loads and are comparatively noiseless and shock absorbent. Usable temperature range is from −40 to 210° F. Sizes from 3¼ to 12 in. diameter have load capacities from 300 to 3000 lb and are available with Hyatt or Timken tapered roller bearings and Zerk pressure grease fittings. Made by **Hamilton Caster & Mfg. Co.**, 1668 Dixie Highway, Hamilton, O.

For more details circle NED-171 B7 on enclosed inquiry slip

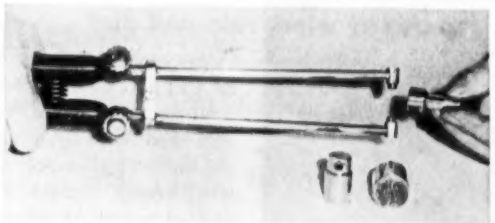
TACHOMETER GENERATOR
of nonmagnetic stainless steel

Linearity within ±0.5 per cent is feature of size 11 alternating current servo motor, directly coupled to an induction generator of the drag cup type. The one-piece assembly is made of nonmagnetic stainless steel and is equipped with a precision gearhead for low backlash. Ambient temperature operation up to 150° C is possible. Made by **Eastern Air Devices, Inc.**, 369 Central Ave., Dover, N. H.

For more details circle NED-172 B7 on enclosed inquiry slip

GAS-OXYGEN HAND TORCH
has interchangeable burner heads

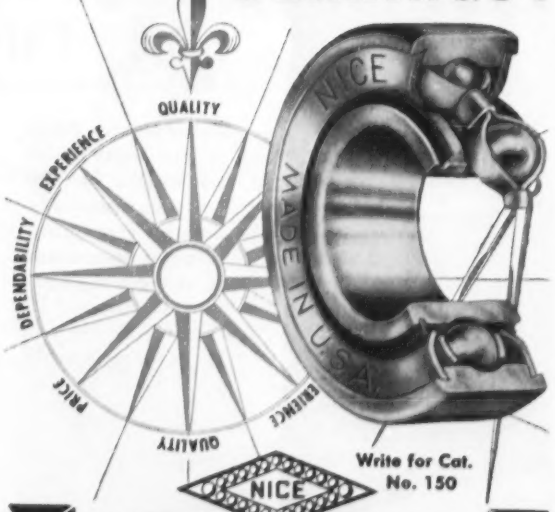
Any of three interchangeable tips for glass and metal-working applications can be inserted in the Insto-Change gas-oxygen hand torch by squeezing the



handles. Tips are inserted between prongs and can be tilted to any angle. Two gases unite outside the burner head, eliminating "cold spots" in the flame and preventing flashback. Manufactured, natural, hydrogen, propane or other gases can be used. Tips provide flame lengths from 1 to 18 in., the latter a wide, bushy flame. Made by **Bethlehem Apparatus Co.**, Dept. NED, Front & Depot Sts., Hellertown, Pa.

For more details circle NED-173 B7 on enclosed inquiry slip

IT'S NICE... TO BE SURE OF YOUR BEARINGS!



Write for Cat. No. 150

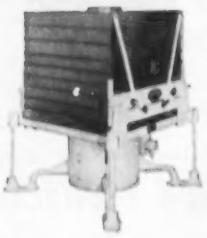
NICE

NICE BALL BEARING CO.
NICETOWN • PHILADELPHIA • PENNSYLVANIA

For more details circle NED-174 B7 on enclosed inquiry slip

Sifts huge volumes with Big Savings in Floor Space

RICHMOND SPROUT-WALDRON
Gyro-Whip SIFTER



Noted for huge output, amazingly compact design, and sanitary operation, these sifters are available in sizes ranging from 3-sieve, floor-mounted models to free-swinging super-sifters with 180 sieves. Stainless steel and wood construction. Can sift from 2 mesh up to 325 mesh. They handle any product that can be mechanically separated. Aspirator tips to air wash graded products can be provided.

Write for Bulletin 135-A

Other Sprout-Waldron size classification equipment includes revolving reels, shaking and gyrating screens, air and magnetic separators, and graders. Write for details.

SPROUT-WALDRON
Manufacturing Engineers Since 1866
8 LOGAN STREET • MUNCY, PA.
EQUIPMENT FOR SIZE REDUCTION—MIXING & BLENDING — BULK MATERIALS HANDLING — PELLETING & CUBING — PRODUCT CLASSIFICATION

IN/502

For more details circle NED-175 B7 on enclosed inquiry slip

PLANT SAVES ON 45 ACRES OF OVERHEAD WORK WITH

UP-RIGHT
aluminum
SCAFFOLD-ON-WHEELS

You, too, can save with rapidly assembled Up-Right scaffolds

Up-Right Scaffolds • Dept. 145
1013 Pardee St., Berkeley, Calif.

For more details circle NED-176 B7 on enclosed inquiry slip

GET TIGHTER CONNECTIONS

with Schrader airline fittings and ferrules

Schrader ferrules, properly applied, provide safe, airtight connections. Beside items shown here, Schrader produces fine air hose, fitted hose lengths, ferrule contracting tools and hose reels. Specify Schrader for the neatest, most efficient air installations. The free Schrader descriptive data shows how air can be installed as simply as electricity.

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
459 Vanderbilt Avenue, Brooklyn 38, N. Y.

For more details circle NED-177 B7 on enclosed inquiry slip

Cut socket replacement costs with McGILL® industrial sockets

Use LEVOLIER Industrial Sockets and eliminate frequent socket replacement resulting in inconvenience, costly maintenance and unproductive down time. These 600 watt, 250 volt LEVOLIER sockets are built better to last longer.

Screw shells are .006" heavier than standard, in either brass or extra heavy impact resisting molded phenolic. Sections screw together for easy wiring. Proven LEVOLIER switch mechanism insures dependability of pull chain, fibre lever or push button control. Underwriters' Laboratories Inspected.

Available from your electrical wholesalers

YOU CAN DEPEND ON McGILL QUALITY

Request *McGill catalog No. 84 today*

McGILL MANUFACTURING CO., INC. 151 N. Campbell St. Valparaiso, Indiana

For more details circle NED-178 B7 on enclosed inquiry slip

LOOK WHAT YOU CAN DO WITH HANDY & HARMAN SILVER BRAZING ALLOYS

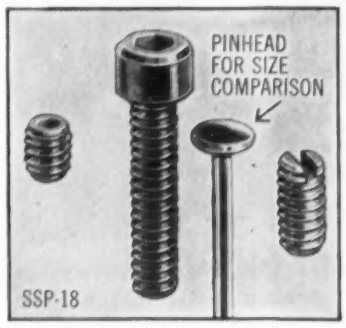
You can join a host of metals, similar or dissimilar, permanently ...quickly...economically with EASY-FLO or SIL-FOS. These Handy & Harman brazing alloys are ideal for all types of production heating methods: torch, burner, induction, oven, salt bath and others. Successful silver brazing case histories are too numerous to count...the next could be yours.

Bulletin 20 tells the story of EASY-FLO, SIL-FOS and HANDY FLUX, along with valuable information on joint design and brazing techniques. We would like to send you a copy.

HANDY & HARMAN 82 Fulton Street New York 38, N. Y.

For more details circle NED-179 B7 on enclosed inquiry slip

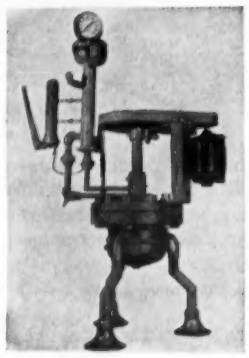
SET SCREWS for miniaturized equipment



Mini-Mite No. 0, 1, 2 and 3 set screws, offered in socket, socket cap and slotted styles in a variety of points, are available for use in miniaturized equipment. They have fully formed fine threads, uniformity for maximum contact with driving tools and are heat treated for high tensile strength without brittleness or decarburization. Screws are offered in specified lengths, threaded lengths and special materials. Made by **Set Screw & Mfg. Co.**, 130 Main St., Bartlett, Ill.

For more details circle NED-180 B7 on enclosed inquiry slip

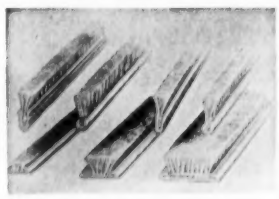
HIGH PRESSURE AUTOCLAVE built of glassed carbon steel



Reactions up to 750 psi can be handled by this autoclave which combines corrosion resistance of glass lining and structural strength of carbon steel. Wide selection of agitation can be obtained from its variable speed drive and two-blade impeller agitators, also made of glassed steel. There is provision for thermometer well. The nonmetallic rotary seal has pneumatic lubrication. Capacities are 1, 2 and 3 gal. Made by **Pfaudler Co.**, Dept. NED-2, 1023 West Ave., Rochester 3, N. Y.

For more details circle NED-181 B7 on enclosed inquiry slip

PLASTIC BONDED WEATHERSEAL seals out wind, rain and dirt



Doors and windows can be effectively sealed against wind, rain, dirt and dust with this vinyl plastic-backed wool pile weatherseal. Square, flat, beaded, round or serrated shapes meet manufacturers and builders requirements. Permanent bonding of wool fibers does not affect vinyl's flexibility, and the suppleness of the plastic allows it to be easily threaded into window and door extrusions. It will follow irregular shapes and contours in window and door frame assemblies. Pile height and plastic backing dimensions can be held to within ±0.005-in. Made by **Schlegal Mfg. Co.**, Div. P-12, 277 N. Goodman St., Rochester 7, N. Y.

For more details circle NED-182 B7 on enclosed inquiry slip

PLATEGRIP
PLATE FASTENERS FOR CONVEYOR BELTS

Make strong dust-tight, water-tight joints in belts of any width. Special design spreads tension uniformly across belt, allow natural troughing of belt and assures smooth operation over flat, crowned or take-up pulleys. Sizes for belts of from 1/4" to 1 1/2" thickness. *Write for Catalog Sheet.*

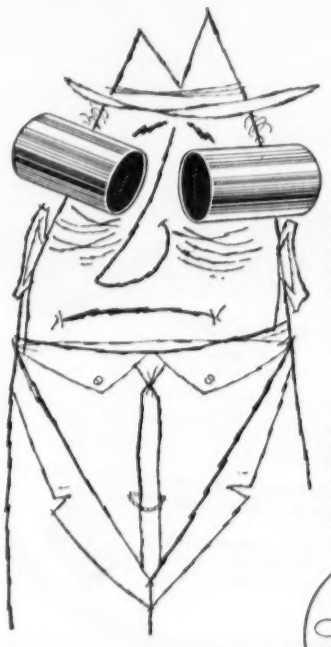
ARMSTRONG BRAY & CO.
5362 Northwest Highway • CHICAGO 30, U.S.A.

For more details circle NED-183 B7 on enclosed inquiry slip

New idea in pipe insulation

It's Snap•On, the only one-piece pipe insulation molded of fine glass fibers. Just open the seam—and it snaps on the pipe. Comes in 3 ft. and 6 ft. sections that one man can apply. Lowest applied cost and highest thermal efficiency of any insulation for cold and hot piping up to 350°. Lighter . . . tougher . . . permanent, yet reusable. Available in 62 cities, plain or jacketed in sizes up to 33". See Yellow Pages under "G-B Insulation" for local distributor or WRITE TODAY FOR NEW BROCHURE. **Gustin-Bacon Manufacturing Company, 262 W. 10th St., Kansas City, Mo.** *Advt.*

For more details circle NED-184 B7 on enclosed inquiry slip



WE HAD PROBLEMS until we discovered that doing our own FLARING–SQUARING BURRING–BEADING was so easy and so profitable with the

LEONARD TUBEMASTER 2-CP

designed and priced for the smaller shop by the makers of America's finest line of tube processing machines and tools.

9200 BOLSA AVE., SANTA ANA, CALIFORNIA

Leonard PRECISION PRODUCTS CO.

For more details circle NED-185 B7 on enclosed inquiry slip

Pump-don't slop INDUSTRIAL LIQUIDS

Get rid of antiquated methods such as pouring, drawing, siphoning, spigoting. Install Tokheims! These high-vacuum pumps are invaluable in maintenance and production work; they help build a barrier against fires and accidents, halt waste, speed production, and improve housekeeping.

Tokheims deliver up to 20 gallons per 100 strokes. No piston to leak, stick, or freeze. Available with hose or spout outlets.

Call your dealer, or Tokheim representative; write for literature—and approved liquid list.

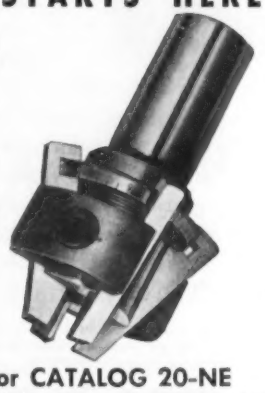
General Products Division
TOKHEIM CORPORATION
DESIGNERS AND BUILDERS OF SUPERIOR EQUIPMENT
1656 Wabash Avenue SINCE 1901 Fort Wayne 1, Indiana
Subsidiaries: Tokheim N.V., Leiden, Holland.—Gen-Fire, Inc., Shelbyville, Ind.
Factory Branch: 475 Ninth Street, San Francisco 3, California
In Canada: Tokheim-Reader of Canada, 205 Yonge St., Toronto, Ont.

QUALITY TOKHEIM HIGH VACUUM HAND PUMPS

For more details circle NED-186 B7 on enclosed inquiry slip

KUTMORE ADJUSTABLE HOLLOW MILLS

PRECISION STARTS HERE



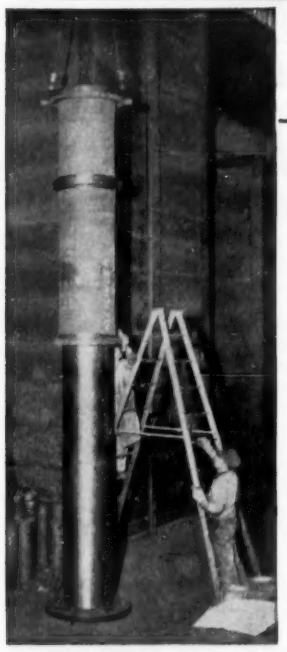
Any combination of . . . turning . . . tapering . . . facing . . . chamfering . . . trepanning in one pass. Exclusive micrometer adjustment feature for rapid set-up. Cutting capacities from 1/32" to 2" diameter in standard stock.

WRITE TODAY for CATALOG 20-NE

Our engineering department is at your disposal on your hollow mill problems.

CARL WIRTH & SON, INC.
1625 CLINTON AVE. NO.
ROCHESTER 5, N. Y.

For more details circle NED-187 B7 on enclosed inquiry slip



HOW SHENANGO CENTRIFUGAL CASTINGS PAY OFF!

Centrifugally cast for pressure service

This large sluice gate operating cylinder, assembled by precise shrink fit as shown here, will safely handle pressures up to 250 psi. The Meehanite Metal cylinder housing, sleeved with a bronze liner 20" in diameter . . . are both centrifugally cast by Shenango for increased tensile strength and improved resistance to wear, stress and abrasion. For complete information on rough finished, semi-machined or precision-machined parts, ferrous or non-ferrous, write to: Centrifugally Cast Products Division, The Shenango Furnace Co., Dover, Ohio.

SHENANGO CENTRIFUGAL CASTINGS

COPPER, TIN, LEAD, ZINC BRONZES • ALUMINUM AND MANGANESE BRONZES
MONEL METAL • NI-RESIST • MEEHANITE METAL • ALLOY IRONS

For more details circle NED-188 B7 on enclosed inquiry slip

UNLIMITED OPPORTUNITIES
for saving money in heat transfer operations

High heat transfer efficiency, low cost, light weight and compact design make Tranter Platecoil the easiest, best and most economical answer to a wide range of heat transfer problems in industry. Platecoil replaces pipe coil and saves engineering, fabricating, installation, operation and maintenance costs while giving more satisfactory performance.

Fast delivery from stock

Write today for your free copy of Bulletin P-57.

PLATECOIL® Division **Tranter Mfg. inc.** LANSING 4, MICHIGAN

You'll find our Catalog in Sweet's Plant Engineering file.

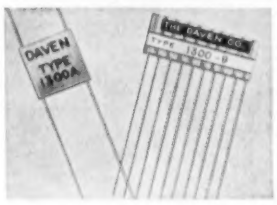
For more details circle NED-189 B7 on enclosed inquiry slip

VARIABLE SPEED DRIVES
400-cycle models from 1/15 to ½-hp

Speeds from any desired maximum to zero and into full reverse, if desired, without change of motor rotation, are delivered by this lightweight 400-cycle infinitely variable speed drive. Reversal is smooth and shockless. Applications include tachometer, gyro and accelerometer testers, integrating devices and similar apparatus of a type used in Air Force ground checkout and test equipment. Sizes from 1/15 to ½-hp have torques up to 750 lb-in. Transmission is available with or without built-in reduction or spur or worm gears. Twelve-pole motor is fungusproof. Speeds range from 0-11 rpm to 0-10,000 rpm. Various remote controls are available. Made by **Graham Transmissions Inc.**, Dept. NED, Menomonee Falls, Wis.

For more details circle NED-190 B7 on enclosed inquiry slip

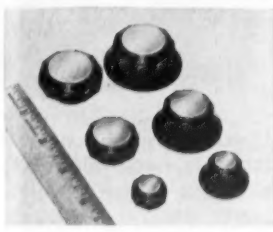
CARD-TYPE RESISTOR
has up to 500,000-ohm resistance



Where limited space prohibits use of cylindrical resistors, card-type 1300A wire-wound resistor can be used. Unit measures ⅝ x ⅝ x 3/32 in. and is usable in circuits using transistors, guided missiles, and airborne communication and navigation equipment. Maximum resistance is 500,000 ohms. Unit dissipates 0.6-w. Accuracies of ±0.1 per cent may be obtained. Resistors are also available as multisection card-type units which will meet MIL-R-93A, Amendment 3 environmental requirements. Made by **Daven Co.**, Dept. NED, 530 W. Mt. Pleasant Ave., Livingston, N. J.

For more details circle NED-191 B7 on enclosed inquiry slip

COLLET KNOBS
for ⅛ to ¼-in. shafts



Black Tenite II Kollet Knobs are available in family of three sizes with or without skirts. Largest fits ¼-in. shafts only, middle size is for ¼ or ⅛-in. shafts, while smallest fits only ⅛-in. shafts. Skirts can have an indicating line, if desired. Snap-in inserts are offered in ten colors for color coding or matching. All collet parts are nonferrous and heavily nickel-plated. Made by **Cambridge Thermionic Corp.**, 472 Concord Ave., Cambridge 38, Mass.

For more details circle NED-192 B7 on enclosed inquiry slip

IT'S SMOOTH

IT'S CLEAN

IT'S STRONG

New Rex Plate Top Roller Chain with "snap on" top plates of NYLON

Send today for the new bulletin which tells about Rex® N860 Plate Top Roller Chain, a roller chain with top plates of nylon especially developed to provide smooth, clean, strong transport of bottles, jars, cans and packages. Can operate without lubrication! Mail the coupon below.

CHAIN BELT COMPANY
Milwaukee 1, Wisconsin

CHAIN Belt Company
4686 W. Greenfield Ave.
Milwaukee 1, Wis.
Please send me Nylon Plate Top Bulletin 57-12.
Name.....
Company.....
Address.....
City.....*State*.....

For more details circle NED-193 B7 on enclosed inquiry slip

TIME-RECORDER + TOTALIZER

gives complete production data continuously . . . automatically

Now get complete, accurate, documented production data on any machine, process, operation. Eliminates costly, inaccurate spot-checks, time studies.

TR+T records on continuous 4-month tape. Uses no ink. No maintenance. Thousands in use in large and small plants.

Write for brochure "F-6" and list of users.

STANDARD INSTRUMENT CORP.
DIVISION OF HEAT-TIMER CORPORATION
657 BROADWAY • NEW YORK 12, N. Y.

For more details circle NED-194 B7 on enclosed inquiry slip

B.F.Goodrich

FREE TIRE AND WHEEL ANALYSIS can increase efficiency, cut costs

New All-Purpose pneumatic industrial tire features versatility! The tread provides excellent traction on all surfaces, in forward or reverse. Huskier shoulders and a continuous center rib help assure longer, more even wear. The tire body is stronger, more stable under heavy or awkward loads. And because it's pneumatic, floors are protected. The ride is cushioned to reduce driver fatigue and protect loads.

Get a FREE TW ANALYSIS!

The proper tires on materials handling equipment can mean big savings. The right tires can increase the efficiency of the vehicle. They wear longer. Often they help reduce maintenance expense. Make sure you have the right tires on your equipment. Request a free analysis of your materials handling problem. Just mail the coupon. A special consulting service also is available to manufacturers of materials handling equipment.

B.F.Goodrich Tire Co.,
A Division of The B.F.Goodrich Co.
Department TW-616, Akron 18, Ohio

Please send me additional information on your Tire and Wheel Analysis Plan

Name_____
Company_____
Street_____
City_____ Zone____ State____

B.F.Goodrich FIRST IN RUBBER

Specify B.F.Goodrich tires when ordering new equipment

For more details circle NED-195 B7 on enclosed inquiry slip

RACK CARRIERS
Handle Big Loads Easily

Bakery goods, foundry cores, machine parts, china ware and hundreds of items are being handled easily, quickly and safely with low cost overhead Tramrail Systems.

One man pushes many tons with little effort. No wear on floors. Overhead track always smooth. No floor congestion. Provides efficient handling routine.

GET THIS BOOK!
BOOK No. 2008
Packed with valuable information...

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
6635 East 285th St. Wickliffe, Ohio

CLEVELAND TRAMRAIL

For more details circle NED-196 B7 on enclosed inquiry slip

Silbrite PLASTIC PLUGS and CAPS are easy to-install low-cost PROTECTION against shipping hazards. No damaged threads no dirt no moisture or leakage prevents loss of lubricants and fluids. **Silbrite** PLASTIC PLUGS and CAPS won't jar loose or pop out ...have terrific impact strength. The finger-nail test will prove to you that they don't shred! They are safe for personnel to handle and they can't be misapplied. **Silbrite** PLASTIC PLUGS and CAPS are used by hundreds of industrial manufacturers. Consider your own product. Perhaps you, too, can use the low-cost, SURE PROTECTION provided by **Silbrite** PLASTIC PLUGS and CAPS.

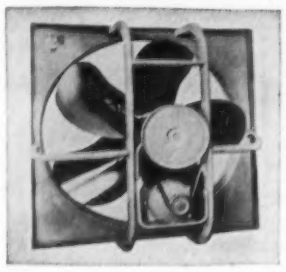
for further information, just write to

Silbrite INDUSTRIAL DIVISION
• 10 East 40th Street
New York 16, New York

7P

For more details circle NED-197 B7 on enclosed inquiry slip

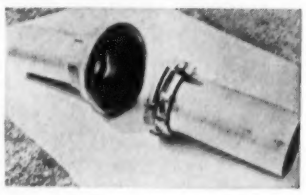
WINDOW & PORTABLE FANS
are thermostatically controlled



Line of Constellation window and portable fans includes a de luxe 20-in., four-speed, electrically reversible window unit which is thermostatically controlled and has push-button speed regulation. A de luxe 16-in. window fan with the same features is also offered. A 20-in. portable unit has electrically reversible motor, automatic thermostat and pilot light mounted on an eye level visual control panel. Similar 20-in. portable fan, minus the pushbutton control, pilot light and thermostat, is low cost model. It has finger-proof front and back guards. Accessories include window panels, a roll-about stand and a floor stand. Made by **Chelsea Fan & Blower Co.**, Dept. NED, 639 South Ave., Plainfield, N. J.

For more details circle NED-198 B7 on enclosed inquiry slip

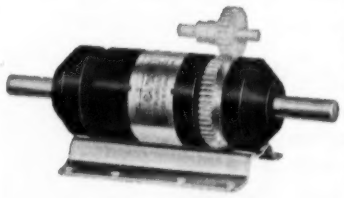
PIPE LINE COUPLER
is 2½ in. unit for aluminum pipe



Added to line of Fast Move Couplers is this 2½-in. unit for schedule 5 (IPS) aluminum pipe. It has a permanent baked-in dry lubricant to reduce friction wear and withstands up to 1000 psi working pressures. Coupler is available attached or unattached to pipe. Made by **Food Machinery & Chemical Corp.**, John Bean Div., Dept. IC-40, Box 145, San Jose 3, Calif.

For more details circle NED-199 B7 on enclosed inquiry slip

MINIATURE DIFFERENTIAL
has optional antibacklash feature



Installation of this miniature differential is facilitated by foot-mounted ball bearing shaft supports. Long-life unit will add or subtract two rotating inputs or angular inputs. It can be used for controlling relative speeds, obtaining wide speed ratios between shafts, or reversing or changing speed quickly without disconnecting the power source. Thirty-four ratios range from 1:1 to 27:1. Antibacklash feature and sealed construction are optional. (*Editor's Note: This item appeared in Dec. '56 issue with the wrong illustration.*) Made by **Metron Instrument Co.**, 436 Lincoln St., Denver 3, Colo.

For more details circle NED-200 B7 on enclosed inquiry slip

Lesto PORTABLE-HEAVY DUTY ELECTRIC HAND SAW

- SAWS LIKE A DREAM
- PRECISE AS A SWISS WATCH
- FINEST BALANCE
- LEAST VIBRATION

8 BALL AND ROLLER BEARINGS for all moving parts

Turn it on, guide it . . . a Lesto saw will do the rest. Operating at a rate of 2300 strokes a minute, LESTO cuts finer than sandpaper-smooth, reaches hard-to-get-at-places.

VERSATILE! RUGGED! POWERFUL!
The LESTO Saw has many talents. With its 20 different blades, it cuts hardwood, softwood, plywood, formica, pressboard, plastic, metal, abrasives. It's a rip, cross-cut, coping, keyhole, band, scroll and jig saw—7 saws in 1!

LESTO has a PLANETARY GEAR—the best known mechanism to convert the rotary motion of the motor to the reciprocating motion of the blade.

Service and Parts Available Nationally—SAWS • DRILLS • SHEARS • NIBBLERS

See Your Industrial Distributor or Write:

VICTOR J. KRIEG, Inc.
PRECISION-MADE POWER TOOLS FOR UNSURPASSED PERFORMANCE
611 BROADWAY, NEW YORK 12, NEW YORK

For more details circle NED-201 B7 on enclosed inquiry slip

WHAT?

What is your best weapon against electrical and flammable liquid fires? Instant-action Kidde Dry Chemical Portables! Available in 5, 10 lb. pressurized (re-charged at any commercial air pump), 20, 30 lb. cartridge operated models. Both are fast and easy to use: point horn, pull trigger . . . fire's out. Write for Kidde's P-8 "Full Line" Extinguisher Catalog.

The words 'Kidde', 'Lux', 'Lux-O-Matic', 'Fyre-Freez' and the Kidde seal are trademarks of Walter Kidde & Company, Inc. and its associated companies.

Kidde

Walter Kidde & Company, Inc.
224 Main St., Belleville 9, N. J.

For more details circle NED-202 B7 on enclosed inquiry slip

CARBON MET

A SPECIFIC CLEANING REPLACEMENT FOR CARBON TETRACHLORIDE

A HALOGENATED AROMATIC HYDROCARBON

A superior metal dry cleaning solvent and degreaser for all types of electric motors, instruments, electronic equipment. Sold in Ready-To-Use "Handy Kit," containing Patented dip and drier basket and larger sizes.

A Lower Toxicity Solvent

- Quick Cutting solvent against stubborn dirt and grease.
- Non-Explosive...Safe...Comfortable to work with.
- Non-Corrosive to metals. Fast, clean evaporation.
- Non-Ionic...Hi-Dielectric...a specific for cleaning electrical components.

MUCH FASTER CUTTING THAN "CARBON TET" CAUSES NO RUSTING ...LEAVES NO FILM

IMMEDIATE DELIVERY
1 Pint or a Tank Car!

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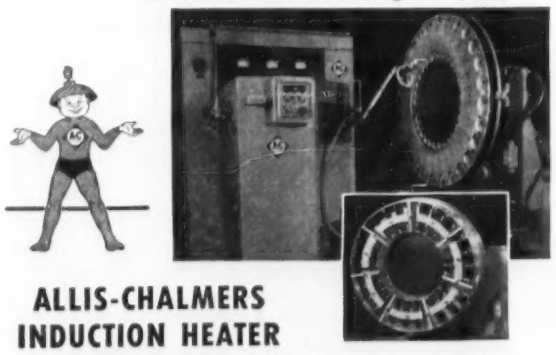
Mfg. Chemists
LAWRENCE, MASS.
120 SOUTH CANAL ST.

For more details circle NED-203 B7 on enclosed inquiry slip

Jet Speed Brazing
at Rheem Manufacturing Company



ALLIS-CHALMERS INDUCTION HEATER
produces FACSIMILE Weldments in Seconds

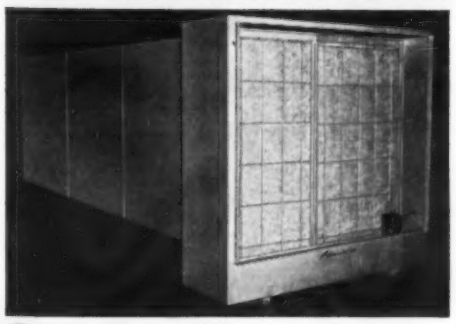
the JOB — *Brazing inlet assembly vanes for J-57 engines.*
An Allis-Chalmers 25-kw induction heater and an *A-C designed work fixture* give Rheem a streamlined brazing set-up. Even in the face of stringent precision requirements, Rheem is brazing at high speed, with each weldment as smooth and perfect as the next.

If you braze, solder, harden, anneal or heat, it will pay you to get all the facts on Allis-Chalmers induction heaters. See your nearby Allis-Chalmers representative or write Allis-Chalmers, Industrial Equipment Division, Milwaukee 1, Wisconsin.

ALLIS-CHALMERS A-C A-5308

For more details circle NED-204 B7 on enclosed inquiry slip

FOR HIGH CAPACITY CONTROLLED HUMIDIFICATION



RP Aprilaire
AUTOMATIC INDUSTRIAL
HUMIDIFIERS

HIGH CAPACITY—Unit Sizes Up to 10 G.P.H.
POSITIVE CONTROL—No lag or over-run.
UNEQUALLED EFFICIENCY—New vapor principle eliminates water solids problem.
FLEXIBILITY—Can be suspended or pedestal mounted. Gas, steam or hot water heat source.
• ISOTHERMAL OPERATION • MINIMUM MAINTENANCE

For Information, write
RP ... PRODUCTS OF RESEARCH **Research Products Corporation**
Dept. 910, MADISON 10, WIS.

For more details circle NED-205 B7 on enclosed inquiry slip

THIS PAASCHE GUN IS A MASTER PAINTER'S DREAM

A Gun That Inspires Full Pride In Workmanship

PERFECT BALANCE: The Paasche Model 21 has a compact head, a generous two-finger trigger with easy pull and a comfortable handle — all in perfect balance.

INFINITE SPRAY PATTERN ADJUSTMENT: The new dual purpose air valve permits the use of air from horn holes only, center air cap holes only, or an intermixture of any proportion from these sources. The atomizing air control and the fan control afford infinite pattern adjustment with a minimum number of air caps.

BUILT FOR HEAVY USE: The one-piece heat-treated aluminum forged shell can really take abuse. Tough, durable anodized finish with chrome-plated drop forged brass fluid body make this a handsome gun that will not show wear. All internal metal parts are stainless steel. Teflon packing materials are self-lubricating, will not dry out.

ECONOMY OF OPERATION: Large, unrestricted air passages of short travel through the gun assure high volume of air atomizing even the heaviest materials at lower pressures.

EASY MAINTENANCE AND SERVICING: Gun body is well-rounded and highly polished making it easy to wipe clean. Cartridge type air valve assembly is easily removed for repair or replacement if ever required.

CONSULT YOUR CLASSIFIED DIRECTORY FOR NEAREST PAASCHE REPRESENTATIVE OR WRITE FOR INFORMATIVE BULLETIN.

PAASCHE Airbrush Company
A DIVISION OF CLINE ELECTRIC MANUFACTURING CO.
1909 W. DIVERSEY PARKWAY • CHICAGO 14

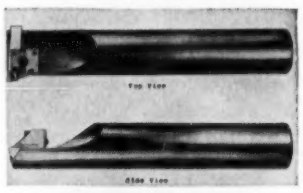
For more details circle NED-206 B7 on enclosed inquiry slip

TILTING LIFT DEVICE
features crank balancing hoist

Heavy loads lifted by the Tilt-O-Lift can be tilted to any angle convenient for positioning on a machine or work station. Machine shops and assembly lines can use device for setup; welding shops for positioning welds; foundries for tumbler lids and core placing; and automotive or aircraft plants for lifting engines at proper levels and angles. It will lift up to 1½-ton loads, tilting them by means of a crank balancing hoist. Made by **Tilt-O-Lift Co.**, 9512 Belmont Ave., Franklin Park, Ill.

For more details circle NED-207 B7 on enclosed inquiry slip

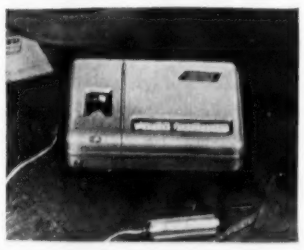
BORING BAR
features adjustable chip breaker



Chip control is achieved with this boring bar through its infinitely adjustable solid carbide chip breaker. Designed for use on turret lathes, boring mills and other machines, the triangular shaped tool bit has an adjusting set screw behind the breaker for various feeds and depths of cut. Wedge-action clamping distributes clamping pressure over a wide bit area. Made by **Everede Tool Co.**, 2002 N. Parkside Ave., Chicago 39, Ill.

For more details circle NED-208 B7 on enclosed inquiry slip

DICTATION MACHINE
portable unit is usable anywhere



All-transistor 4¼-lb dictation machine operates on two self-contained batteries, as well as on office, car or home current. The Peirce Secretary is compatible with office transcribing machines and incorporates instant playback and review at any dictation point and end-of-letter instruction marking on an index slip. Its 15-minute magnetic belt can be mailed in ordinary envelopes and filed or reused many times. Machine has input-output volume control, microphone, and indicator light which shows operation and when batteries need replacement. Made by **Peirce Dictation Systems, Inc.**, 5906 Northwest Highway, Chicago 31, Ill.

For more details circle NED-209 B7 on enclosed inquiry slip

The "MASTER COMPAR"

INDICATING MICROMETER COMPARATOR
has the VISIBLE feel

No Arguments as to correctness of reading due to "feel".
Use it as Comparator, Master Micrometer, Go & No Go Gage.
1" Range reading in 1/10,000"

To attain permanent accuracy at these close limits, highest precision workmanship and exclusive design of mechanism are of Major Importance and ONLY found in "MASTER COMPAR".

0-1" SIZE IN HARDWOOD CASE $105
Also Available in LARGER SIZES

A RIGHT HAND TOOL
Release button for movable Anvil on RIGHT Hand side enables you to hold tool the conventional way.

NEW—
Resetting to Zero in 5 seconds
Quick adjustable tolerance bands.
Heavy TUNGSTEN CARBIDE Anvils will actually measure Out-of-Roundness, Ovalness & Taper.

Ask for Illustrated Circular — Code GIOFF
Sold thru Tool Supply Houses
Ask for Demonstration

GEO. SCHERR CO., INC.
COMPLETE LINE OF PRECISION INSTRUMENTS
200 ND LAFAYETTE STREET • NEW YORK 12, N.Y.

For more details circle NED-210 B7 on enclosed inquiry slip

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MEYERCORD Nameplate DECALS Help SELL Your Product

Your trademark and brand names are symbols of consistent high product quality. When prominently and appealingly displayed on your products, they are confidence-building selling assets that improve your competitive position in today's brand-conscious market.

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For more details circle NED-211 B7 on enclosed inquiry slip

TRICO *America's Finest*
AUTOMATIC OILERS *Repay Their Cost* MANY TIMES OVER

Productive man-power is released for other, more profitable duties.
Down-time for "trust-to-luck," wasteful hand oiling is eliminated.
Costly bearing failures are reduced to a minimum.
Machine life is greatly prolonged.

Eliminate old, wasteful and dangerous "Trust-to-luck", daily hand oiling methods . . . One filling of TRICO Oilers lasts a long time and provides perfect constant bearing protection at all times. Switch to TRICO Oilers now . . . They are quickly and easily installed. There's a type and size for most every application.

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FOR FUSE CLIPS
"Lock like a vise."—Stay put. Save Power—Fuses—Clips. Stop unnecessary fuse blows. Especially recommended for use with "Dual-element" fuses. Pay for themselves quickly.
SEND FOR FREE BULLETIN No. 6

TRICO FUSE MFG. CO. MILWAUKEE, WIS.

For more details circle NED-212 B7 on enclosed inquiry slip

Instantly tests iron content in stainless steel welds

NEW *Ferritic* **ELCOMETER**
(pocket size)

This new precision instrument replaces time-consuming, destructive laboratory analysis. Enables you to make rapid, on-the-spot, non-destructive tests for iron content along welds.

Measures magnetic intensity. Operates on principle that increase of magnetic flux intensity between two soft iron test probes of a U-shaped magnetic circuit reduces the forces in a spring-loaded magnetic needle in a parallel magnetic branch.

Accurate readings in all positions. Needle locking device assures correct readings. Balanced in all planes. Sturdily constructed. Comes in tough leather case.

Write for illustrated folder

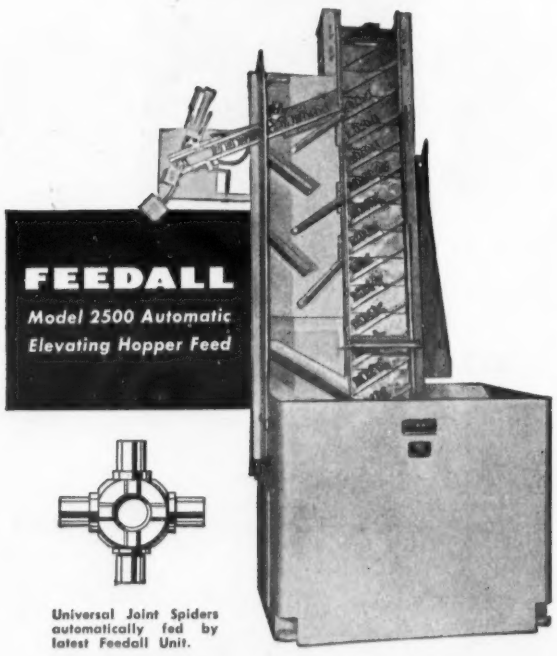
FERRO CORPORATION
4141 East 56th Street • Cleveland 5, Ohio

For more details circle NED-213 B7 on enclosed inquiry slip

For more details circle NED-263 B7 on enclosed inquiry slip

New AUTOMATIC FEEDER

delivers universal joint spiders to centerless grinder



Universal Joint Spiders automatically fed by latest Feedall Unit.

THIS TIME-SAVING UNIT—a modified Feedall Model 2500—provides fully automatic feed for a wide range of production machines. It feeds both rolling and sliding parts, delivering them automatically, properly oriented and at pre-determined speed.

ADVANTAGES of Model 2500 include: reduced handling time, elimination of tedious hand feed, saving of floor space for material storage.

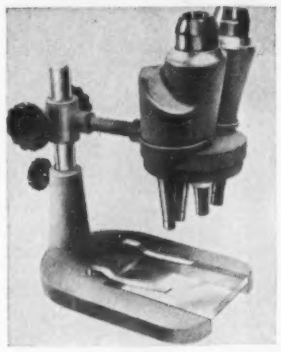
USEFUL FEATURES of the Model 2500 are: the completely self-contained operation, motor and variable speed transmission, full 9 cu. ft. hopper, and elevating conveyor with variable delivery angle. Other features include low loading height and take-off from the conveyor at left, or right, or both. Also each unit is fully factory-tested to assure specified action and delivery rate.

FEEDING PROBLEM? Whether you feed cylinders, rods, discs, rings or headed parts, a Feedall model handles them all. Send us your problems and we'll do the rest.

FEEDALL INCORPORATED WILLOUGHBY, OHIO

For more details circle NED-264 B7 on enclosed inquiry slip

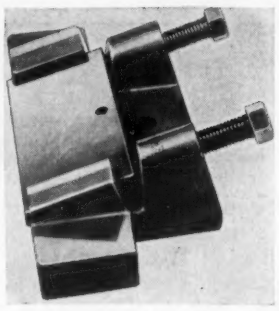
STEREO MICROSCOPE
provides 21 and 34X magnification



Clear, sharp, erect image in three dimensions is provided by this stereo microscope with working distance of up to 3 in. Standard pair of wide field 8X Kellner eyepieces provide 21 and 34-power magnification. Additional eyepieces are available for greater or lesser magnification. Instrument features low reflection coated prism erecting system, helical rack and pinion focusing and adjustable interpupillary distance. It is priced at $99.50. Made by **Edmund Scientific Co.,** 180 E. Gloucester Pike, Barrington 17, N. J.

For more details circle NED-265 B7 on enclosed inquiry slip

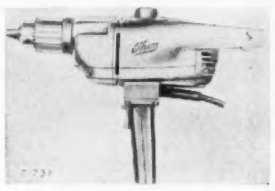
DIVIDED MACHINE VISE JAWS
bolted or clamped to machine table



Used singly or in pairs, Hart divided machine vise jaws are bolted or clamped to the machine table for holding work for planing, grinding, milling, drilling and other operations. Hardened steel jaws are angled to hold the work down and edges are serrated to insure a firm grip. Large or small work can be accommodated in the 10¼ x 5 x 2½-in. vise, jaws of which are 3 x 6 in. Made by **Walter W. Field & Son,** 41 Hayward St., Cambridge 42, Mass.

For more details circle NED-266 B7 on enclosed inquiry slip

ELECTRIC DRILLS
sizes range from ⅝ to 1 in.

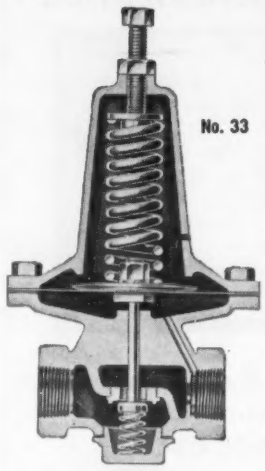


EN series of universal electric drills is equipped with 7-ft of conductor cable, safety switch handle, spade handle and removable dead handle. Model EN5, with ⅝-in. drilling capacity, and EN-6, with ¾-in. capacity, have a three-jaw chuck and key. Larger model EN7 with ⅞-in. capacity and EN-8 with 1-in. capacity, have Morse taper sockets, also optional on two smaller models. All can be ordered with reversing switches in the handles. Weights range from 17¾ to 16 lb and speeds from 430 to 300 rpm. Made by **Thor Power Tool Co.,** State & Kane Sts., Aurora, Ill.

For more details circle NED-267 B7 on enclosed inquiry slip

For more details circle NED-268 B7 on enclosed inquiry slip

HOW TO GET . . .
Accurate Control for Small Systems



These features of Masoneilan No. 33 Reducing Valves give you improved regulation on small steam or air lines.

- Extra long spring gives wide range of adjustment
- Fast, accurate response to changes in demand
- Single-seated stainless steel (for steam) or composition cone type (for air) plugs provide tight shutoff
- Bronze and stainless steel construction for long life

They are also designed for easy installation, adjustment and servicing, with all parts removable with valve in the line. Specify these reducing valves for dependable, low-cost performance.

Masoneilan No. 33-1 and 33-22 are available at your local distributor. Call him, or write:

MASON-NEILAN
Division of Worthington Corporation
69 Nahatan Street, Norwood, Mass.

A HIGH Quality PRODUCT

MN6-5

CONDENSED SPECIFICATIONS

Rating	Sizes	Reduced Pressure Ranges
33-1; 200 @ 400°F	¼", ⅜", ½", ¼" NPT	2-20; 20-6-; 60-100 psi
33-22; 200 psi @ 100°F		

(Other ranges available, information on request)

Order from Your Masoneilan Distributor • Use His Experience • Save Work • Save Time

For more details circle NED-269 B7 on enclosed inquiry slip

VEEDER-ROOT

For every engine, there's a VEEDER-ROOT REV-COUNTER

Veeder-Root Rev-Counters *show you and your customers,* at any time, exactly how your equipment is performing up to its guarantee . . . whether they're getting out of it all the service you built into it. These direct counter-readings also show at a glance when routine maintenance is coming due . . . whether servicing is needed . . . and supplies other valuable facts-in-figures. Available with tachometer take-off.

This 2-way protection is vital not only as a built-in feature of engines, but also of generators, compressors, heaters, refrigerators, high-speed cameras, and what have *you?* Write!

VEEDER-ROOT INC., Hartford 2, Conn.
Chicago 6, Ill. • New York 19, N. Y. • Greenville, S. C.
Los Angeles • San Francisco • Montreal 2, Canada
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"the Name that Counts"

For more details circle NED-270 B7 on enclosed inquiry slip

USG® FRACTIONAL H. P. BRUSHES

THESE USG BRUSHES CAN HELP YOU OBTAIN MORE DEPENDABLE SMALL-MOTOR PERFORMANCE

If you manufacture fractional horsepower motors, it will pay you to install USG Brushes to get the most efficient operation from your product. USG Brushes are doing an efficient job for manufacturers of appliances, hand tools, fans, and similar units. To check your specifications with our materials, write for our new Catalog B-56 and the new USG Grade List . . . you'll find them a great help in designing.

221

THE UNITED STATES GRAPHITE COMPANY
DIVISION OF THE WICKES CORPORATION • SAGINAW 10, MICH.

For more details circle NED-271 B7 on enclosed inquiry slip

Permanently End Condensation Drip, Rust and Corrosion with NoDrip Plastic Coating!

Here is the inexpensive, easy way to solve your condensation problem once and for all. NoDrip plastic coating acts immediately to insulate and protect tanks, pipes, walls, ceilings, air ducts and other metal equipment against condensation drip, rust and corrosion. NoDrip can be applied by anyone without special experience with brush, trowel or spray. NoDrip is also resistant to acid, alkali and brine... protects concrete, brick, plaster, tile, wood or composition surfaces.

FREE

32-PAGE NoDrip DATA HANDBOOK — Complete with photographs, charts and technical information to help solve your condensation problem. Write today!

Available at leading plumbing and mill supply houses

J. W. MORTELL COMPANY 526-B Burch St., Kankakee, Ill.

For more details circle NED-272 B7 on enclosed inquiry slip

COLES CRANES

cut costs 101 ways*

WRITE FOR YOUR COPY of *"101 Cost-Cutting Ways"**—a suggestion-wise booklet about the variety of lifting and conveying operations you can do easier, safer for less with a COLES CRANE. For among mobile cranes, none other—not one—matches Coles' performance, precision, maneuverability and all-around economy. And Coles carries a full one year warranty!!

COLES CRANES, INC.—
JOLIET 4, ILLINOIS

for nearest distributor-see your classified directory

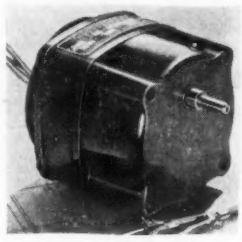
For more details circle NED-273 B7 on enclosed inquiry slip

SHELF TRUCK
20 x 28-in. model for heavy loads

Tools, dies, transformers, batteries and electrical components are among heavy loads that can be handled on the model 7260-D steel shelf truck. It is available with two or three shelves and an optional 14 x 19 x 4-in. drawer. The 14-gage 20 x 28-in. shelves are adjustable and reversible. Overall height is 32 in. Casters have 4-in. hard rubber wheels with 1½-in. wide tread. Truck is also offered with stationary feet and choice of four baked enamel finish colors. Made by **Toledo Metal Furniture Co.,** 1040 S. Hastings St., Toledo 7, O.

For more details circle NED-275 B7 on enclosed inquiry slip

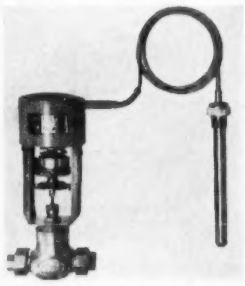
SYNCHRONOUS GEARMOTOR
for strip chart recorders



Designed for airborne strip chart recorders and other applications, this 400-cycle hysteresis synchronous gearmotor is physically interchangeable with RBC-2505 60-cycle motors. It operates on 115 v at 100 rpm with 7.5 oz-in. torque and has a continuous duty rating. Other speeds, both synchronous and induction, with ratings adjusted to corresponding gear reductions, will be available. Made by **National Pneumatic Co.,** Holtzer-Cabot Motor Div., Dept. N, 125 Amory St., Boston 19, Mass.

For more details circle NED-276 B7 on enclosed inquiry slip

TEMPERATURE REGULATOR
for steam, hot water or other use



No. 997 temperature regulator will close automatically to prevent overheating and possible damage to products in process in the event its thermostatic unit is accidentally damaged. Unit has a 4⅝-in. bellows for smooth modulating action in controlling flow of steam, hot water or other mediums. Its tight-closing, single-seated valve makes it suitable for "dead end" or terminal service. Sizes from ¼ to 2 in. are offered. Applications include processes and water heaters and, with reverse-acting valves, flow control of cooling water to transformers, engines, and air compressors. Made by **Robertshaw-Fulton Controls Co.,** Fulton Sylphon Div., Box 400, Knoxville 1, Tenn.

For more details circle NED-277 B7 on enclosed inquiry slip

Profit Maker

Delpark Filter-Matic

TUBULAR SCREEN FILTER

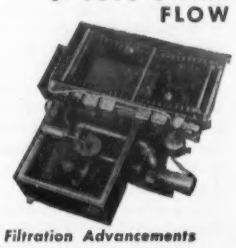
The Delpark Filter-Matic will reduce your operating costs. Here are a few of the ways in which savings can be made.

1. Increased machine efficiency in accuracy and productive time.
2. Reduced maintenance cost in eliminating unnecessary machine wear and reservoir cleaning.
3. Extended grinding wheel and coolant life.
4. Lower coolant operating temperature reduces rejections.
5. Permanent filter media . . . adequate in most cases.

The Delpark Filter-Matic can perform these savings and many others for you. Let a Delpark Field Engineer give you the complete story.

• AUTOMATIC, SELF CLEANING • HIGH CAPACITY • SAVES FLOOR SPACE • OPTIONAL PRE-COAT FEATURE • PERMITS LOW MICRO-INCH FINISH

5-1000 G.P.M. FLOW



Delpark ... FIRST in Filtration Advancements

INDUSTRIAL FILTRATION COMPANY
14 INDUSTRIAL AVE. LEBANON, INDIANA

For more details circle NED-278 B7 on enclosed inquiry slip

DRY Hands QUICK!

—in less than 30 seconds!

WORLD Hand Dryers have replaced messy towels

WORLD — the air dryer that outsells all others. Used by such notables as *Mayo Clinic, Northwestern University, U. S. Army and Navy, Chrysler Corporation, Libby-Owens-Ford Glass, Sheraton Hotels, Greyhound Bus, Marquette University, Gulf Oil Co.* ...and thousands of others. Here's why:

Rugged, trouble-free WORLD Hand Dryers operate at *high speed.* Dry hands in a jiffy. End the expense and mess of towels; end littered floors and clogged toilets; can save up to $600 per dryer per year!

The Dryer Proved Best by U. S. Government Test

MAIL THIS COUPON TODAY!

WORLD DRYER CORPORATION
616-22 W. Adams St., Chicago 6, Ill.

Gentlemen: Without obligation send me copies of letters from users, also folder of facts including cost-saving figures and full details on your FREE-TRIAL offer.

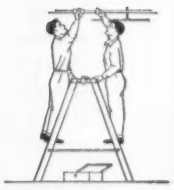
My name.....
Firm name.....
Street.....
City..... State.....

For more details circle NED-279 B7 on enclosed inquiry slip

2 can work from the F900 at the same time!

BUILT FOR EXTRA SAFETY

This F900 Alco-Lite Industrial Aluminum Ladder has added bracing on the bottom steps and extra riveting throughout. Heavy rubber feet prevent slipping.



Some jobs require two men working together. Others require changing ladder position continually. In both cases the Alco-Lite F900 with steps on both sides makes the job much easier. It eliminates the need for two ladders or for turning the ladder around.

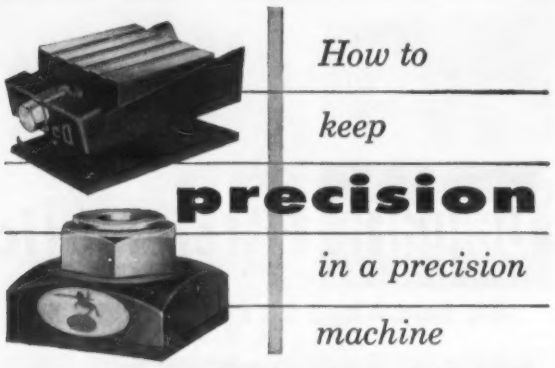
The F900 is one of a complete line of industrial aluminum ladders and has many desirable qualities. It is light, strong and rigid. It won't rust, or splinter. Being non-sparking it is safe around inflammable and explosive materials. It requires almost no maintenance. Available in 11 sizes.

Write To Dept. 20A For More Information

ALCO-LITE original manufacturer of aluminum ladders

Aluminum Ladder Company
WORTHINGTON PENNSYLVANIA

For more details circle NED-274 B7 on enclosed inquiry slip



SET YOUR MACHINES LEVEL AND KEEP THEM LEVEL WITH EMPCO LEVELING JACKS

You're paying for precision. *But . . . are you getting it?* Improper leveling and excessive vibration can seriously impair the precision performance you pay for in costly machine tools. *Set* your machines level and *keep* them level with EMPCO Leveling Jacks! EMPCO Jacks provide a solid, smoothly adjustable foundation for machine tools, large surface plates, automation lines, tool room and production equipment of all types. Easily installed, they increase machine efficiency, reduce downtime and maintenance. Periodic releveling is a quick, easy one-man job. Combined with VI-SORB Mounting Pads, EMPCO Jacks control internal and transmitted vibrations, reduce noise and retard machine creepage. Jacks available in six styles, 25 models. Pads cut to fit.

Send Today for Descriptive Bulletin No. 100—
The Enterprise Machine Parts Corporation
2727 Jerome Avenue • Detroit 12, Michigan

EMPCO LEVELING JACKS

For more details circle NED-280 B7 on enclosed inquiry slip

GET THIS GUIDE TO GEAR LUBRICATION

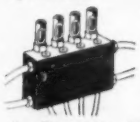
IT'S NEW

IT'S COMPLETE

IT'S **FREE**

If you design, build or use equipment with large gears, Bulletin 60-A can save you time, money and headaches—provides complete information on Farval Spray Lubrication Systems available for manual or automatic operation.

Write today. You will receive a copy of Bulletin 60-A and the name and address of the Farval representative in your area who is prepared to help you select the proper Farval equipment for your machines.



THE FARVAL CORPORATION
3283 East 80th Street • Cleveland 4, Ohio
Affiliate of The Cleveland Worm & Gear Company, Industrial Worm Gearing.
In Canada: Peacock Brothers Limited.

For more details circle NED-281 B7 on enclosed inquiry slip

STOP STATIC ELECTRICITY With STATIKIL

PUSH BUTTON and SPRAY

Trademark Reg. in U.S. Pat Off.
THE ORIGINAL — THE ONLY

for

- Processing of plastics, textiles, chemicals, cellophane, paper, printing, etc., where static disorganizes processing.
- Meter and instrument housings where static disorganizes recordings.
- Floor impregnation where rolling trucks, castors, etc., generate static charges.
- Spark retardent in hazardous operations.

$3 a can
$30 per dozen (spray)
$15 per gallon (Fluid)

STATIKIL Division of J. E. Doyle Company
1220 West 6th St., Cleveland 13, Ohio

Mail Coupon Today

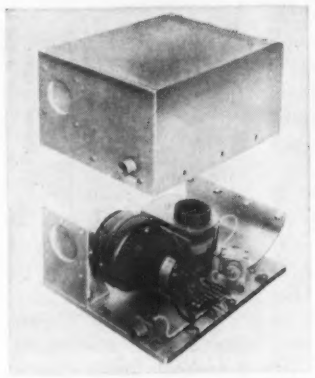
Send the following (please check): ned
☐ Free Literature ☐ One case of spray cans @ $30
☐ One spray can $3 ☐ One bulk gallon @ $15

Name _____
Company _____
Address _____
City _____ State _____

Used By Hundreds Of Leading Plants

For more details circle NED-282 B7 on enclosed inquiry slip

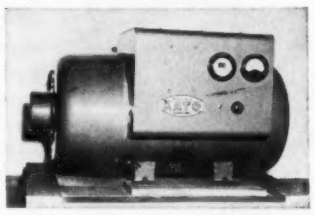
TANK-MOUNTED TRANSDUCER
ultrasonically cleans large parts



Larger Telephonics Corp. tank - mounted transducer has sufficient capacity for efficient conveyor operations. It permits ultrasonic cleaning of large objects, or a number of small objects and can be dual-mounted on production line tanks or on separate tanks where portability is desired. The air cooled magnetostrictive type transducer is effective over the entire cleaning area. Distributed by **John B. Moore Corp.**, Peerless Bldg., Nutley 10, N. J.

For more details circle NED-283 B7 on enclosed inquiry slip

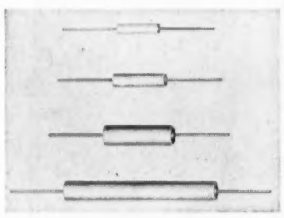
MOTOR-GENERATOR SET
converts dc to 120-v ac



Small, lightweight motor-generator set for converting direct current to alternating current has both motor and alternator encased within a common frame, and a single shaft with two ball bearings. It operates at 1800 rpm with generator output of 120 v, single-phase, 60-cycle, 2500 w. Direct current motor has a minimum voltage of 27½ v and maximum of 29 v. Instrument panel includes frequency meter, ac volt meter and input voltage control rheostat. Weight is 550 lb. Made by **Kato Engineering Co.**, 1464 First Ave., Mankato, Minn.

For more details circle NED-284 B7 on enclosed inquiry slip

CARBON FILM RESISTORS
¼, ½, 1 and 2-w sizes available



Layer of pure carbon is deposited on a ceramic rod in these carbon film resistors for use in test equipment, meters and high frequency circuits. Silver plated end caps are expansion fitted for positive contact. Unit is encased in a nonhydroscopic ceramic tube and hermetically sealed with high temperature solder. Units are fully insulated and suited for snap-in component clips. Standard tolerance is ±1 per cent, with tolerances ±2 and 5 per cent available on special order. Sizes are ¼, ½, 1 and 2 w. Made by **Wirt Co.**, Continental Carbon Div., 13930 Lorain Ave., Cleveland 11, O.

For more details circle NED-285 B7 on enclosed inquiry slip

2 STRAPS FOR 2 TONS

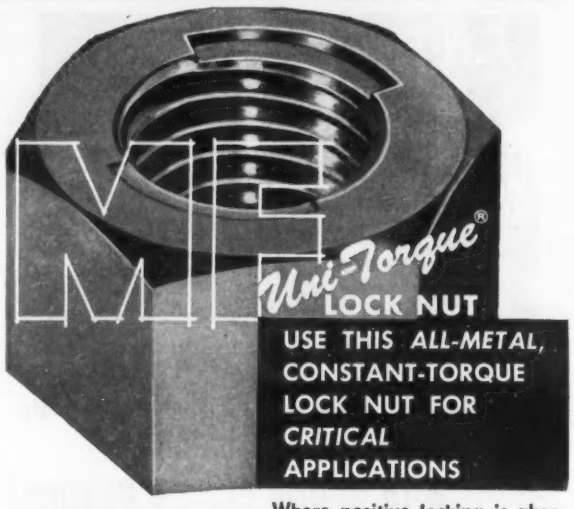
That pallet of 24 engine blocks weighs 4,000 pounds. It's being reinforced for shipment with only two straps of USS GERRARD Round Steel Strapping, but that's enough to keep those blocks securely in place until they reach their destination.

Do *you* have a packaging problem? Send for a FREE copy of USS GERRARD'S new, 36-page Blue Book of Packaging—today.

GERRARD STEEL STRAPPING DIVISION, UNITED STATES STEEL CORPORATION
4717 S. Richmond St., Chicago 32, Ill.

USS GERRARD
ROUND STEEL **STRAPPING** FLAT STEEL
UNITED STATES STEEL

For more details circle NED-286 B7 on enclosed inquiry slip



NOW TRY THE M-F TWO-WAY LOCK NUT!

DOUBLE CHAMFERED—May be automated without selective devices. Starts from either end—locks in body of nut, not at the crown. Write for specifications.

*Ask us why.

Where positive locking is absolutely essential, the M-F *Uni-Torque* lock nut becomes *more* than a means of applying uniform bolt tension—*more* than a smooth-running production line.

The M-F Uni-Torque delivers *safety* . . . fidelity of design down to the last thread. *Performance as engineered!*

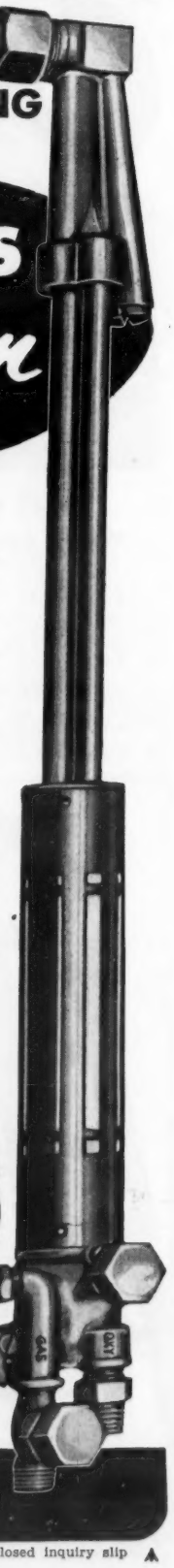
No need to take a chance—M-F Uni-Torque Lock Nuts cost NO MORE (cost LESS to *use!*)*

MAC LEAN-FOGG *Lock Nut Company*
5535 N. Wolcott Street, Chicago 40, Illinois

For more details circle NED-287 B7 on enclosed inquiry slip

THE HOTTEST THING IN WELDING

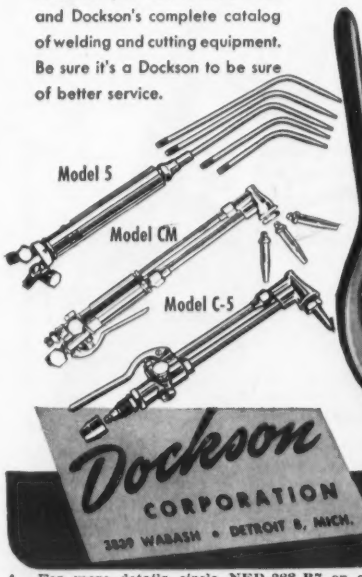
TORCHES *by Dockson*



Get a Dockson Torch and enjoy the pleasure of handling the finest. Feel the perfect balance of the rigid one-piece, silver soldered construction. Here is top quality in workmanship and materials for long, dependable service. Dockson Torches have a better seal compound, developed especially for oxy-acetylene service in both mixer and union rings. The two ring construction means fewer rings to replace, stronger construction. Dockson Torches are easily serviced with standard stock replacement parts that fit like the originals.

There's a Dockson Torch built to do your job and priced to fit your budget.

Write for your distributor's name and Dockson's complete catalog of welding and cutting equipment. Be sure it's a Dockson to be sure of better service.



For more details circle NED-288 B7 on enclosed inquiry slip

New!.. Simplified!.. Smaller!

ELECTRONIC NON-SYNCHRONOUS WELDER CONTROL

• for WALL or MACHINE MOUNTING •

Write for BULLETIN 8992

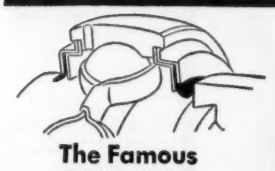
Address Square D Company
4041 North Richards Street
Milwaukee 12, Wisconsin

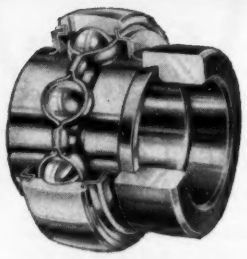
SQUARE D COMPANY

For more details circle NED-289 B7 on enclosed inquiry slip

NEW WORK CLOTHES

for the famous Fafnir WIDE INNER RING BALL BEARING WITH SELF-LOCKING COLLAR





The Famous PLYA-SEAL
(contact type)
a flexible sealing washer of synthetic rubber located between two "dished" steel plates.

YOUR CHOICE . . . in Fafnir Ball Bearing Power Transmission Units

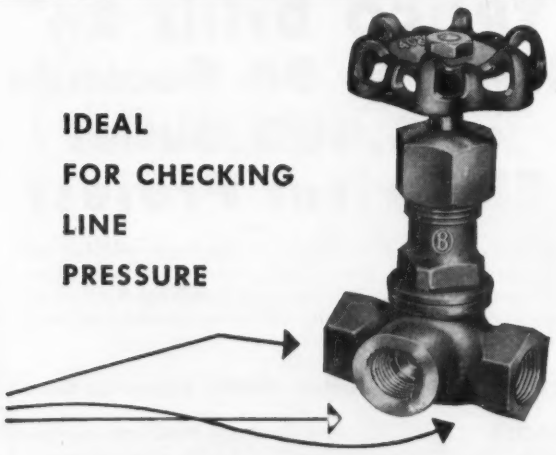
Both standard duty pillow blocks and flange cartridges are now available with either *Mechani-Seals* (slinger type) or *Plya-Seals* (contact type).

Write for new Bulletin describing Plya-Seal Wide Inner Ring Ball Bearing. The Fafnir Bearing Co., New Britain, Conn.

FAFNIR BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

For more details circle NED-290 B7 on enclosed inquiry slip

IDEAL FOR CHECKING LINE PRESSURE



The No. 408 Three-Way Needle Valve is especially designed for this situation:

Pressure in a line has to be checked regularly, but there isn't room for both a valve and a "tee".

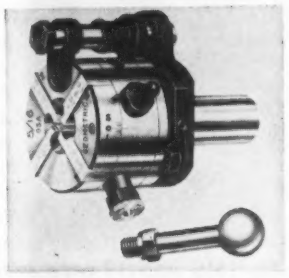
The O-B No. 408 has a third outlet where a pipe plug can be inserted. When it's necessary to check line pressure, remove the plug and insert a gauge.

There are many other time-saving applications for this bronze valve. Write for additional information. 4626-V

O-B VALVES Ohio Brass MANSFIELD OHIO, U.S.A.

For more details circle NED-291 B7 on enclosed inquiry slip

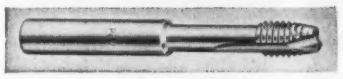
SELF-OPENING DIE HEAD
for small screw machines



This convertible self-opening model DSA die head with aligning shank is usable on either automatic or hand type Brown and Sharpe and other small screw machines. Head has both an outside trip for short length, fine pitch, shoulder threading and a pull-off trip for longer threads. Easy to assemble and disassemble, die head features improved locking bolt and segment, tongue and groove drive between cam spring plate and skeleton, heavy stop plunger and tripping mechanism, large adjusting screws and cam spring plate screws, and interchangeability of parts. Made by **Geometric Tool Co.**, New Haven 15, Conn.

For more details circle NED-292 B7 on enclosed inquiry slip

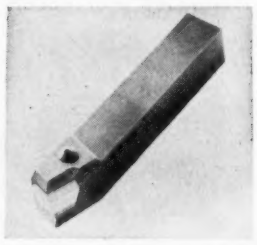
SCREW MACHINE TAP
necked shank promotes lubrication



Necked shank for generous lubrication is one of several features of the Stub Tap designed for use in screw machines. Other features include a spiral point to reduce torque and improve chip disposal and a short thread length to counteract tendency to produce bellmouth threaded holes because of misalignment. Taps are offered in high speed steel ground thread, National Coarse or National Fine, plug or bottoming chamfer, in Nos. 2 to 10 machine screw sizes. Made by **Pratt & Whitney Co.**, 20 Charter Oak Blvd., West Hartford 1, Conn.

For more details circle NED-293 B7 on enclosed inquiry slip

TOOL HOLDER
designed for oxide inserts



Special geometry and holding methods are incorporated in this tool holder for Diamonite oxide tools of the indexable insert type. Body of holder is machined of high-carbon steel and heat-treated. Clamp provides uniform clamping pressure over entire length of the separate, removable chip breaker, insuring tool rigidity. These Superigid tool holders are made in 1 x 1, 1 x 1¼ and 1 x 1½-in. shank sizes, right and left hand, for special ¾-in square and ⅝-in. included-circle triangular insert turning tools, shoulder tools and facing tools with negative, neutral and positive rake. Made by **Diamonite Products Mfg. Co.**, Dept. N, Canton 2, O.

For more details circle NED-294 B7 on enclosed inquiry slip

New Low-Cost Ways to SAVE YOUR PUMPS

FILTROS "Flo-Clear" LIQUID FILTERS

The complete line of filters for water and many other liquids. New Model C (top left), for "in-the-line" use, may be installed anywhere most convenient. 3 other models are for use at end of supply line—in stream, pool, lake, tanks or solution vats.

In addition to uses with liquids, the "Flo-Clear" filter will remove sediment, oil, moisture and suspended impurities in compressed air and gas lines. Write for free literature.

We can also help you with other filtering problems, with either one of our many standard products, or a new one designed and built to your individual specifications. Write us today.

ENGINEERING, DESIGN Service

FILTROS also Produces Porous Ceramic Media for: AERATION, FILTRATION, DIFFUSION, ELECTROLYSIS, GAS ABSORPTION, CATALYST SUPPORTS, AIR CONVEYOR SYSTEMS.
Consult us about your Needs.

FILTROS INC.

610 West Commercial St.
East Rochester, N.Y.
Manufacturers of Porous Ceramics for Industry since 1913

For more details circle NED-295 B7 on enclosed inquiry slip

SILICONE RUBBER *SILASTIC* R TAPE

forms resilient, void-free, moisture proof jacket

A class H insulating material, Silastic* R Tape remains rubbery at 500 F and is an excellent thermal conductor. Silastic R Tape is a laminate of glass cloth and Dow Corning's silicone rubber. Electric machines insulated with Silastic R Tape carry heavier loads without overheating. It is easy to apply . . . useful for building flexible heating elements for contoured surfaces as well as for insulating electric machines. Consider Silastic R Tape for your insulating problems.

DOW CORNING SILICONES

Get FREE sample, data . . . Write today! Dept. 5414

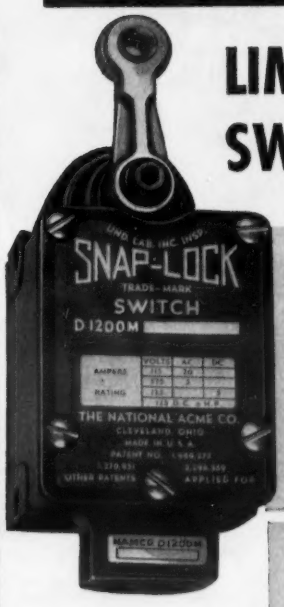
DOW CORNING CORPORATION
MIDLAND, MICHIGAN

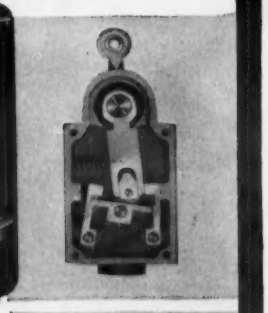
*T. M. REG. U. S. PAT. OFF.

For more details circle NED-296 B7 on enclosed inquiry slip

SNAP-LOCK TRADE MARK

LIMIT SWITCHES





SNAP-LOCK Limit Switches have separate enclosures within a single housing for mechanical and electrical sides. Can be furnished WATER and OIL TIGHT.

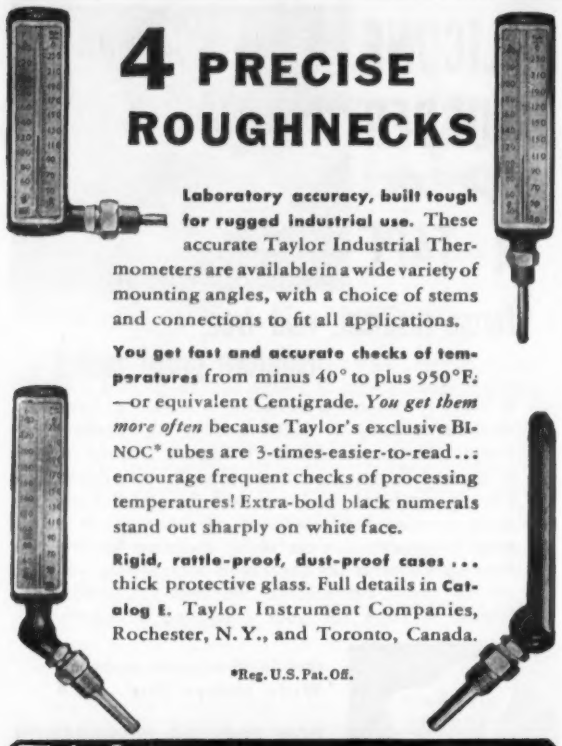
The STANDARD of Limit Switches, SNAP-LOCK can be used for single, double or distribution circuit wiring—AC or DC. Self-wiping coin silver contacts insure quick action make and break. Simple snap-action locking mechanism for long-lived trouble-free operation has ample overtravel plus safety travel. Variety of standard operating levers available.

Send for BULLETIN EM-51, or let us discuss your Limit Switch problems with you.

Electrical Manufacturing Division
National Acme
The National Acme Company • 182 E. 131 St., Cleveland 8, Ohio

For more details circle NED-297 B7 on enclosed inquiry slip

4 PRECISE ROUGHNECKS



Laboratory accuracy, built tough for rugged industrial use. These accurate Taylor Industrial Thermometers are available in a wide variety of mounting angles, with a choice of stems and connections to fit all applications.

You get fast and accurate checks of temperatures from minus 40° to plus 950°F.—or equivalent Centigrade. *You get them more often* because Taylor's exclusive BI-NOC* tubes are 3-times-easier-to-read... encourage frequent checks of processing temperatures! Extra-bold black numerals stand out sharply on white face.

Rigid, rattle-proof, dust-proof cases ... thick protective glass. Full details in **Catalog E.** Taylor Instrument Companies, Rochester, N.Y., and Toronto, Canada.

*Reg. U.S. Pat. Off.

Taylor Instruments **MEAN ACCURACY FIRST**

▲ For more details circle NED-298 B7 on enclosed inquiry slip ▲

TO PURCHASING AGENTS ONLY!

FREE! Your Choice...
Evans KING SIZE 10-ft. White-Tape (EXTRA-WIDE BLADE)
or Evans Pocket 12-ft. White-Tape (REGULAR ½" WIDE BLADE)

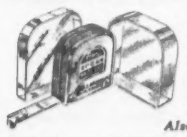
Attention Purchasing Agents:
We make this startling offer to introduce your company to Evans' superior King-Size and Pocket White-Tapes, the finest measuring tapes manufactured.
Simply fill in the coupon below and we'll send you, absolutely free and without any obligation, your choice of either our King-Size 10-ft. ($2.39 retail) or Pocket 12-ft. White-Tape ($1.89 retail)! (Offer limited to one tape per purchasing agent.)
We feel that once you try Evans Tapes, you'll never buy another brand. Here's why:

EVANS KING-SIZE
10-ft. ¾" Wide Steel Tape Stands Up Straight for Easy One-Man Measurements.

The 33% wider blade (full ¾") stays straight up—will not bend when making measurements. Chrome plated zinc die-cast case. Free belt clip for handy carrying and Free Tenite Utility Case. Self-adjusting sliding hook for accurate inside-outside measuring.
Also available in 6, 8, 12-ft. lengths.

All EVANS Tapes are marked so your men don't have to figure!
Work in feet and inches? Read Here
Work in inches? Read Here

EVANS 12-ft. Pocket WHITE-TAPE

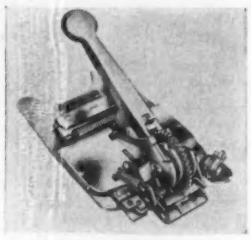


Measures a full 12 feet — eliminates adding two measurements as with shorter tapes. Regular ½" wide blade. Chrome plated zinc die-cast case. Self-adjusting sliding hook for 100% accurate inside or outside measurements. Free transparent Tenite Utility Case.
Also available in 6, 8, and 10-ft. lengths.

Evans RULE CO., Dept. 125, Elizabeth, N.J.
Please send me free sample of (check one)
☐ King-Size 10-ft. Steel Tape ☐ Pocket 12-ft. White-Tape
☐ Send catalog page on Evans Tapes with custom nameplates for gifts to our customers carrying our advertising message.
My two sources of supply for steel tapes are:
1)_____
2)_____
Name_____ Title_____
Company_____
Address_____
City_____ Zone____ State____

For quick, efficient service call your Industrial Distributor. He is your most economical source of supply.

WIRE TYING MACHINE
simplifies lightweight packaging



Parcel post, express and other shipments as well as lightweight packaging are facilitated with this model A general-purpose tying machine. Forward and backward move of handle completes the tie, with uniform, selective tensioning assured. It accommodates 18, 18½ and 19-gage wire. Distributed by **Inland Wire Products Co.,** Dept. NED, 3947 S. Lowe Ave., Chicago 9, Ill.

▲ For more details circle NED-299 B7 on enclosed inquiry slip ▲

BORE GAGE KIT
contains three dial type gages

Ranges of ⅛ to ¼-in., ¼ to ½-in. and ½ to 1 in. are covered by three dial bore gages packaged in this Tri-O-Set portable kit equipped with a carrying handle. Included is a Setmaster to set the gages to any dimension from 0 to 1 in. with wires or Jo blocks. Set is offered at a price considerably less than that of the individual products. Made by **Boice Gages, Inc.,** Hyde Park, N. Y.

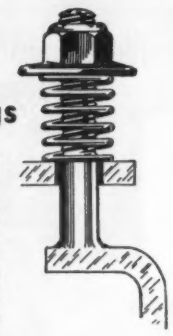
▲ For more details circle NED-300 B7 on enclosed inquiry slip ▲

SMALL PHOTOCOPIER
makes copies up to 9 in. wide

Taking less space than an electric typewriter, the Dri-Stat 200 automatic transfer process photocopy machine handles any copying job up to 9 in. wide. Sharp, clear black-and-white copies are produced in less than 1 minute from any original, including colored inks, half-tones, charts and printing on colored stock. The 20-lb machine functions efficiently in normal office light. Gray stainless steel cabinet contains processing solution tray, paper conveying rollers and motor drive mechanism. Auto-Feed which feeds the paper from operator's hand through the processor at the correct speed and in perfect registration is optional. Made by **Peerless Photo Products, Inc.,** Dri-Stat Div., Dept. NED, Shoreham, L. I., N. Y.

▲ For more details circle NED-301 B7 on enclosed inquiry slip ▲

FLANGED FASTENER
for vibration-proof spring loaded mountings



A newly developed flanged-base hexagon self-locking nut eliminates field adjustment of spring-loaded fastening applications such as compressor motor mountings in refrigerators. The Elastic Stop Nut Corporation of America, at the suggestion of a large manufacturer of refrigeration equipment, designed the ESNA type 1994 with a large, built-in bearing area to eliminate the need of individual nuts and special washers in such applications.

Now, in shipping a spring mounted unit, the new nut can be adjusted at the factory to the proper tension and shipped ready for installation. Or, it can be turned down, compressing the spring and making a solid mounting which cannot shift. Then, upon delivery, the ESNA self-locking nut is backed off to the proper spring tension to float the unit.

Once adjusted at the factory or tightened against the frame, the red locking collar of the 1994 holds the nut firmly in place, impervious to vibration during shipment or normal operation. Yet, if there is a need to dismount the compressor, the nut can easily be wrenched off and on, again and again, without affecting its holding ability. For more details, write:

Elastic Stop Nut Corporation of America
2330 Vauxhall Road, Union, New Jersey, Dept. N33-237

▲ For more details circle NED-303 B7 on enclosed inquiry slip ▲

CONTROLS LEVEL ELECTRONICALLY

LEVEL CONTROLLER

Fail-Safe and unusually versatile—TEKTOR controls level at a high or low limit (or both) without the bother of complex mechanical devices.

- Can be used for liquids, powders, interface (whether conducting or non-conducting).
- Controls level as close as ⅛".
- Probe need not touch the controlled material in many level applications.
- No moving parts . . . only one radio tube.
- Equipped with switch for external alarm or control.

Robertshaw-Fulton CONTROLS COMPANY

Send for technical bulletin

FIELDEN INSTRUMENT DIVISION, Dept. F, 2920 N. 4th St., Phila. 33, Pa.

▲ For more details circle NED-304 B7 on enclosed inquiry slip ▲

Picture above shows Truco vacuum water pick-up removing cuttings and coolant water as Truco unit is drilling. Because Truco is dust-free and relatively quiet, drilling was done in occupied sections of the building without disturbing tenants.

Job superintendent reports, "No other equipment could do the job the diamond drill performed on this project. It shaved weeks off our schedule and reduced our drilling costs materially."

TRUCO Drills 2½" Holes in 90 Seconds on 8,400 Outlet Electrical Project

JOB: Penetrate 3½" concrete cap over cellular steel flooring for 2½" dia. electrical outlets at Ford Motor Company's new Administration Building. 8,400 holes required to bring in electrical, telephone and intercom wiring for offices.

CONTRACTOR: Harlan Electric Company, Detroit

TOOLS: Truco Diamond Drilling Machine equipped with 750 RPM Motor and 2½" O. D. Truco Diamond Drill Bits. (Machine was also used for horizontal drilling).

DESCRIPTION: Spotting crews located outlets and cut the rubber floor tile with a circular saw. Portable rubber-tired Truco Diamond Drilling Machine then drilled through concrete in 90 seconds per hole. Complete cores were lifted out leaving smooth, perfect holes, requiring no patching or finishing. Finished floor undamaged by drilling operation.

WRITE FOR NAME OF NEAREST DISTRIBUTOR
WHEEL TRUEING TOOL CO.
93-3200 W. Davison Ave., Detroit 38, Michigan

INTERNATIONAL HEATING & AIR-CONDITIONING EXPOSITION
INTERNATIONAL AMPHITHEATRE, CHICAGO
FEB. 25-MAR. 1, 1957

▲ For more details circle NED-302 B7 on enclosed inquiry slip ▲

CARING FOR WAXED FLOORS IS . . .

A cinch with Sanax

It waxes as it cleans!

REDUCES THE FREQUENCY OF REFINISHING

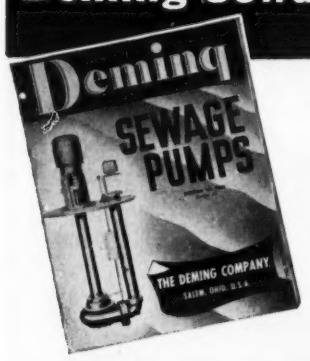
Sanax was developed to permit frequent cleaning of waxed floors *without washing away the finish* . . . and to eliminate waste in wax and labor. A neutral liquid soap with a wax base, *Sanax* not only quickly removes dirt, oil, and grease, but *leaves a thin film of wax*—a lustrous anti-skid protective finish. *Safe for all floors.* Highly concentrated . . . economical to use. For consultation, literature, or demonstration, phone or write nearest *Finnell Branch* or Finnell System, Inc., 5502 East St., Elkhart, Ind.

For machine-scrubbing or damp-mopping waxed floors

FINNELL SYSTEM, INC. *Originators of Power Scrubbing and Polishing Machines* — FINNELL — BRANCHES IN ALL PRINCIPAL CITIES

For more details circle NED-305 B7 on enclosed inquiry slip

Announcing a New Standard Line of Deming Sewage Pumps



Modern features insure efficient operation and long service life. *Obsolescence problems reduced to a minimum.* Discharge sizes: 2-in. to 4-in. for handling solids 1½-in. to 3-in. Capacities up to 900 g.p.m. and heads up to 110 ft. Single and Duplex types for wet and dry pit installations. Standard and optional control equipment. Prompt delivery of orders. Quickly available repair parts.

***New* BULLETIN 7500**
Send for Copy

The DEMING COMPANY
520 BROADWAY • SALEM, OHIO

For more details circle NED-306 B7 on enclosed inquiry slip

How to select the correct
VARIABLE SPEED DRIVE

Get your FREE copy now!

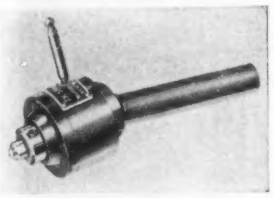
Complete description and engineering data on the Cleveland Speed Variator.

This unique variable speed drive gives you infinitely variable, stepless speeds up to 9:1 (from ⅓ to 3 times input speed). Precise adjustment gives instant, smooth speed change by manual, automatic or remote control. Simple construction, compact, quiet running. No belts or complicated linkage. Thousands already in use. Write for Bulletin K-200.

THE CLEVELAND WORM & GEAR COMPANY
Speed Variator Division, 3283 E. 80th St., Cleveland 4, O.
Sales Representatives in all major industrial markets

For more details circle NED-307 B7 on enclosed inquiry slip

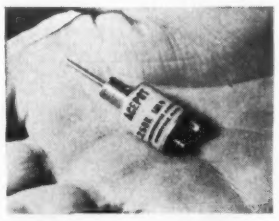
DIAMOND TOOL HOLDER
manual or automatic rotating types



Savings in diamonds, good work finish and elimination of diamond heat are advantages resulting from use of the Turnit rotating diamond tool holder which presents a continuous new diamond edge against the grinding wheel. It is available for either manual or automatic operation and is easily installed on most types and models of external or internal grinders. Made by **J. K. Smit & Sons, Inc.,** Dept. F, Murray Hill, N. J.

For more details circle NED-308 B7 on enclosed inquiry slip

POTENTIOMETERS
10 to 250,000 ohm resistance range

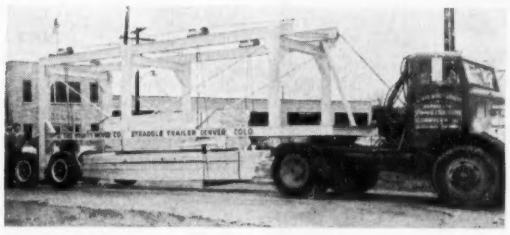


Measuring only ½ x ½-in., Acepot subminiature wire - wound potentiometers have a resistance range of 10 to 250,000 ohm and fine linearity of ±0.3-per cent. Weight is ¼-oz, power is 2 w for 60° C rise and ambient range is −55 to 150° C. All units have one piece machined aluminum case and are sealed, moisture-proofed and antifungus-treated. They are available in standard threaded bushing, servo or flush mountings and ganged units. Made by **Ace Electronics Associates, Inc.,** Dept. NED, 103 Dover St., Somerville 44, Mass.

For more details circle NED-309 B7 on enclosed inquiry slip

STRADDLE TRAILER
handles 20-ton pipe, lumber loads

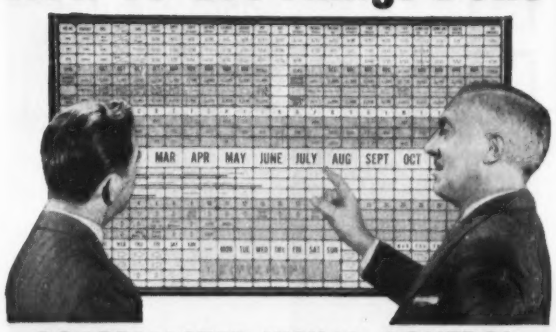
Hauling of steel, pipe, lumber or prestressed concrete loads weighing up to 20 tons can be achieved with the Mighty Mover straddle trailer. The four-



wheel hauler, open in the center, is backed over loads which are raised by means of winch and cables. It is then hooked to any truck tractor equipped with a winch. Trailer is 35 ft long, 12½ ft high and 6 ft wide. It will accommodate load 71 in. wide and 10 ft 2½ in. high. Tires are 10.3 x 20 in. Made by **Mighty Mover Co.,** Dept. N, 1701 E. Louisiana Ave., Denver 10, Colo.

For more details circle NED-310 B7 on enclosed inquiry slip

How To Get Things Done



BOARDMASTER VISUAL CONTROL

Gives you a Graphic Picture of your operations, spotlighted in color. You See what is happening at a glance. Facts at eye level—saves you time, prevents errors.

Simple, flexible—easily adapted to your needs. Easy to operate. Type or write on interchangeable cards, snap in grooves. Ideal for production, scheduling, sales, traffic, inventory, etc. Made of metal. Compact, attractive.

Complete Price $49.50 Including Cards

FREE 24-Page Illustrated Booklet N-500 Mailed Without Obligation

GRAPHIC SYSTEMS 55 WEST 42ND STREET NEW YORK 36, N. Y.

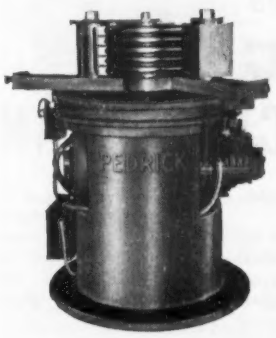
For more details circle NED-311 B7 on enclosed inquiry slip

stop!

HIGH BENDING COSTS

Multiple bending on Pedrick Production Benders can materially cut costs on all bending operations for pipe tube or structural metal.

Prove it. Write us your particular problem. Let us supply the cost-cutting answer in terms of pennies per bend. PEDRICK TOOL AND MACHINE CO., Dept. 6, 3640 N. Lawrence St., Philadelphia 40, Pa.

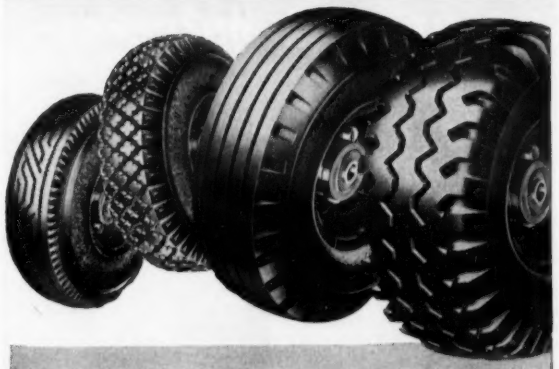


FREE "PEDRICK LINE" BULLETIN. WRITE TODAY.

PEDRICK production benders

For more details circle NED-312 B7 on enclosed inquiry slip

GENERAL



Wide-Base Pneumatics Save You COSTS at Every Turn!

When it comes to saving time, money and labor, General Wide-Base Pneumatics are the best buy you can make. Featuring high flotation for easier rolling, these great work-horse tires cushion equipment and loads, save high cost floors and floor surfaces, give you more load capacity at all speeds. What's more, General's complete line gives you the exact design for every purpose.

Available separately or in assemblies of tires, tubes and wheels. Size O. D. 8" to 35"—200 to 7890 lbs. capacity for low or high speeds.

Rigid

CASTER FORKS

Engineered to carry heavier loads without adding dead weight to equipment, these wide-base caster forks are available in identical pairs in a wide range of sizes.

Swivel

THE GENERAL TIRE

SEND FOR CATALOG, DEPT. 4.

THE GENERAL TIRE & RUBBER CO.
AKRON, OHIO

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you can cut your GLOVE COSTS

with the authorized

JOMAC COST-REDUCTION PLAN

1 Jomac will analyze your working conditions and glove requirements
2 You will receive a complete report and specific Jomac Glove recommendations
3 Test and compare the Jomacs with your present gloves—and the net cost figures speak for themselves

Your glove costs *can* be reduced. To make *profitable* use of this plan, write to Jomac Inc., Dept. G, Philadelphia 38, Pa., and say "Reduce my glove costs."

JOMAC INDUSTRIAL GLOVES

Plants in Philadelphia, Pa., and Warsaw, Ind.
In Canada: Safety Supply Company, Toronto

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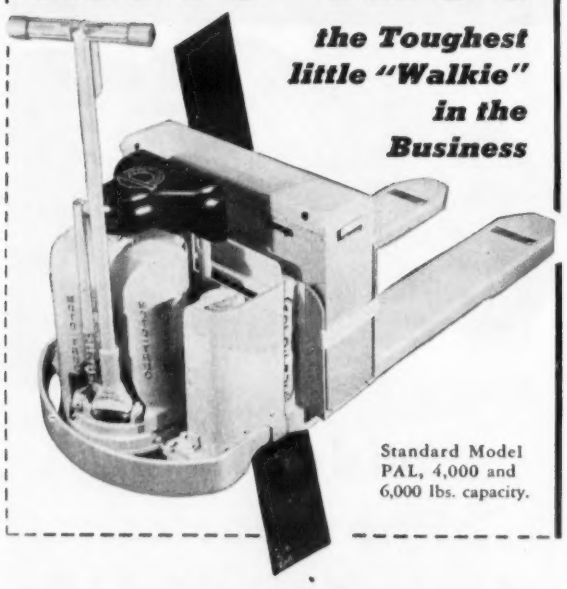
MOTO-TRUC

the Toughest little "Walkie" in the Business



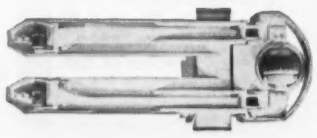
Standard Model PAL, 4,000 and 6,000 lbs. capacity.

It's amazing to see how much material one of these tough MOTO-TRUC pallet trucks can move in a single day. Small though they are, they form a vital time and money saving link in any handling system.

Because they are so useful, MOTO-TRUC puts prime emphasis on dependability. And, you'll agree there is no surer way to keep trucks on the job than to build them simple and rugged . . . free of gadgets, trick mechanisms and fussy adjustments. One look at a MOTO-TRUC pallet truck will convince you that their *rugged simplicity* will keep them on the job longer at lower cost!

★ ★ ★

Rugged construction and simple design typical of MOTO-TRUC machines is shown in this underview. The lifting frame and battery compartment are all one sturdy welded unit that will handle heavier loads without failures. Since the weight of the battery lowers the forks, troublesome pull-rods and vulnerable pull springs are eliminated. The underside is free and clear.



WRITE FOR COMPLETE DETAILS
Ask for "walkie" Bulletin 56-W

Largest Exclusive Manufacturers of "Walkies" and Ride-A-Man Trucks
The MOTO-TRUC Co.
1961 E. 59th St. • Cleveland 3, Ohio
Pallet . . . Platform . . . Hi-Lift Trucks
Representatives in Principal Cities

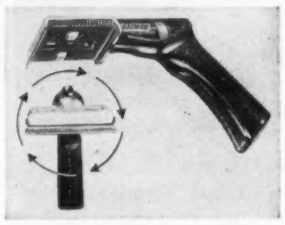
▲ For more details circle NED-319 B7 on enclosed inquiry slip ▲

SOLENOID VALVE controls up to 130-psi pressures

Air, water, oil, gasoline and many other fluids and gases at pressures from 60 to 130 psi can be controlled by this C-series low-cost solenoid valve. Packless and direct acting, it is bubble tight. Orifices range from 5/32 to 7/64-in. and pipe size is ⅛-in. NPT. Offered with range of coil voltages, it can be disassembled for cleaning without removing it from line. Made by **Skinner Chuck Co.,** Skinner Electric Valve Div., 112 Edgewood Ave., New Britain, Conn.

▲ For more details circle NED-320 B7 on enclosed inquiry slip ▲

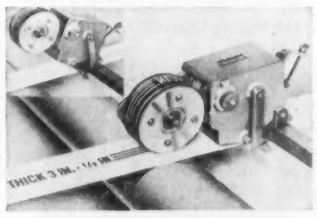
PAINT SCRAPER cutter blade pivots and indexes



Pivoting, indexing cutter blade of this multipurpose paint scraper can be locked in eight positions. By releasing knurled nut, cutter and housing rotate and lock to scrape in any plane while user's hand is in normal position. Hardened and tempered high carbon steel cutter has four different edges for coarse and fine scrapping. Pistol grip handle is unbreakable. Made by **Allway Mfg. Co.,** Dept. 202, 1513 Olmstead Ave., Bronx 62, N. Y.

▲ For more details circle NED-321 B7 on enclosed inquiry slip ▲

CONTINUOUS PRINTER automatically marks conveyed items

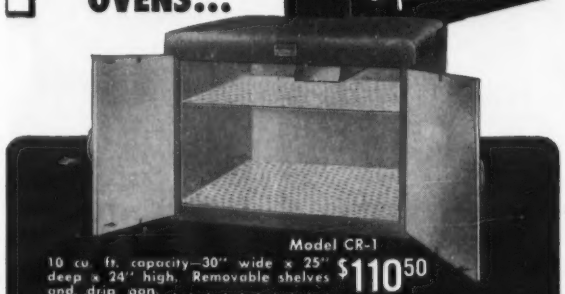


Continuous or repeat codes, dates and trademarks can be applied on any printable surface by the Super Ink Print-All, a self-contained device for marking conveyed materials without disturbing present set-up. It can mark either side of material moving on horizontal or vertical conveyor lines, repeating on 12, 18 or 24-in. cycles or any other cycle within this range. Cycles over 24-in. can be specified. Multiple staggered units will print on 1-in. centers. All inks from semipaste to light liquid are dispensed from the tank type ink well. Normally friction-driven, it can be driven from the conveyor and can be installed with timing mechanism for marking in register. Made by **Pannier Corp.,** 301 Pannier Bldg., Pittsburgh 12, Pa.

▲ For more details circle NED-322 B7 on enclosed inquiry slip ▲

GRIEVE-HENDRY PORTABLE ELECTRIC OVENS...

Standard Models For Every Special Need!



Model CR-1
10 cu. ft. capacity—30" wide x 25" deep x 24" high. Removable shelves and drip pan. . . . . $110.50 f.o.b. Chicago

Portable. Costs less than 5c per hour to operate. Adjustable temperature control to 225° F. Fan driven forced air circulation. Uniform temperature throughout. Plugs into any 110V wall outlet—no special wiring required.

Quick Quotations —Prompt Delivery — Reasonable Prices—on Ovens made to your specifications.

Can be used in a group or bank. Use them on the production line —save handling—hauling.

Other standard models with temperature ranges to 1000°F. available. Write for literature.

GRIEVE-HENDRY CO., INC.
1408 W. Carroll Ave., Chicago 7, Ill.
Export Dept. 10406 S. Western Ave., Chicago 43, Illinois

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Drill Hardened Steels without Annealing—

With the new, improved "HARDSTEEL" Drill, you can do accurate, smooth drilling, countersinking, counterboring and reaming in steels hardened by any process without first annealing the work. And they work with equal ease on work-hardening steels and high carbon—high chrome steels of any degree of hardness.

"HARDSTEEL" Drills fit standard drill presses. They save time and reduce rejects. They permit engineering changes requiring additional drilling after hardening. And parts drilled after hardening always match at assembly.

Write for a copy of the "HARDSTEEL" Operators Manual showing how "HARDSTEEL" drills are cutting costs in thousands of plants.

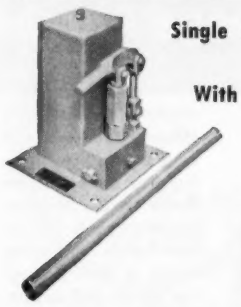
You Harden It—We'll Drill It—With "HARDSTEEL"

BLACK DRILL COMPANY, INC.
1380 East 222nd St. • Cleveland 17, Ohio

"HARDSTEEL"

▲ For more details circle NED-324 B7 on enclosed inquiry slip ▲

HAND HYDRAULIC PUMP



Single and Double Designs to 20,000 Psi
With or Without Reservoir

160 Cubic Inch Reservoir with 8" x 8" Base Plate. Optional Size Piston: ⅜", ½", ¾", 1". Handle length: 18 inches. Catalog No. 160

We specialize in hand pump units to operate in temperatures from minus 65F to plus 160 F and with any capacity reservoirs required.

The single pump with ½" or ¾" piston now available in stainless steel.

WILLIAM S. PINE
Hydraulic Hand Pumps for 1001 Uses
1635 E. 22nd St., Los Angeles 11, Calif.

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What's the job? A standard operation—or one that's unique to your plant? Modernize with Federal Dial Feeds and watch production go up, costs go down. Eliminate need for expensive equipment. Finest materials and workmanship. 6 to 80 tons. Automatic feeds and ejectors if desired.

No. 7 Dial Feed Capacity, 80 tons

Write for new Dial Feed Catalog

THE FEDERAL PRESS COMPANY
706 Division Street, Elkhart, Indiana

FEDERAL DIAL FEED PRESSES
31 Years' Experience in Dial Feed Engineering and Construction

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MARSHALLTOWN

Capacities from 18 Gauge to ½"
Cuts any SIZE . . . any SHAPE

America's finest for every cutting job—straight, irregular or circular patterns.

Speedy—up to 6 ft. per minute. Efficient, easy to operate.

Built for extra heavy duty use. High grade tool steel cutters.

Write today for details and prices.

MARSHALLTOWN MFG. CO., Marshalltown 2, Iowa

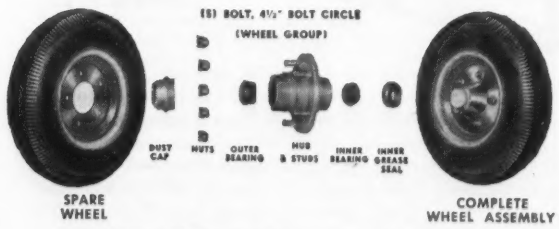
For more details circle NED-327 B7 on enclosed inquiry slip

DICO DEMOUNTABLE WHEELS

for TRAILERS . . . FARM EQUIPMENT and INDUSTRIAL USE

THE LARGEST AND MOST DIVERSIFIED LINE OF INDUSTRIAL LOW SPEED AND HIGH SPEED WHEELS IN THE U. S. A.
. . . IN SIZES UP TO 24" RUBBER TIRE DIAMETER

PRESSED STEEL WHEELS . . . with pneumatic, semi-pneumatic and vulcanized-on tires. Also solid rubber wheels. Write for catalog.



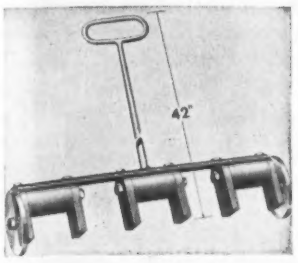
ONE HUB FITS ALL WHEELS

4.00x8	2.50"	Standard Rim
4.80/4.00x8"	3.75"	*Wide Base* Rim
5.00x8	3.75"	Standard Rim
5.50x8	4.25"	*Wide Base* Rim
5.70/5.00x8	4.25"	*Wide Base* Rim
4.80/4.00x12	4.00"	*Wide Base* Rim
5.30/4.50x12	4.00"	*Wide Base* Rim

DICO — LET DICO HELP YOU WITH YOUR WHEEL APPLICATIONS — DES MOINES 5, IOWA

For more details circle NED-328 B7 on enclosed inquiry slip

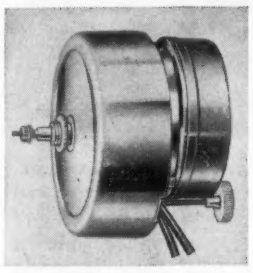
RETRIEVING MAGNET
recovers pieces lost in tank



Pieces lost in or clinging in corners of plating barrels can be easily recovered with this multiple permanent tank magnet. Device can also be used to separate iron from nonferrous metal chips. The gang of magnets covers large tank areas quickly, picking up parts from bottom without stirring up sediment. Available with one to three magnets, with or without support wheels, unit has standard 42-in. handle. Made by **Belke Mfg. Co.,** 944L N. Cicero Ave., Chicago 51, Ill.

For more details circle NED-329 B7 on enclosed inquiry slip

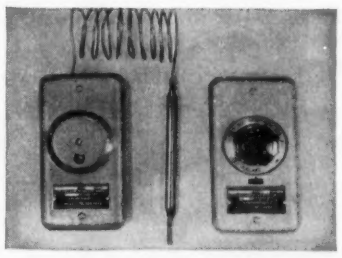
SYNCHRONOUS CLOCK MOVEMENT
for 115 or 230 v ac operation



Synchronous electric motor supplied for either 115 or 230 v ac operation drives this 2½-in. diameter fully-enclosed clock movement. One of the smallest and lightest units available, the 1805 movement has hour, minute and second hand arbors, as well as back setting knob. Threaded center mounting bushing and nut allow easy mounting. For back mounting, studs are provided. Made by **Haydon Mfg. Co.,** 4000 E. Elm St., Torrington, Conn.

For more details circle NED-330 B7 on enclosed inquiry slip

THERMOSTAT
temperature ranges up to 700° F



Ovens, sterilizers, water and oil heaters, platens, degreasing tanks and melting pots are among applications for this general purpose industrial thermostat. Copper bulbs and capillaries are supplied for applications up to 250° F, and steel bulbs and capillaries for use to 700° F. Standard bulb diameters are ⅜ and 3/16 in., while capillary lengths range to 180 in. Switching mechanism is double-pole single-throw snap action, normally-closed or normally-open for ac operation. Direct-current units can be ordered. Case styles include knob and screwdriver adjustment types. Made by **General Electric Co.,** 1 River Rd., Schenectady 5, N. Y.

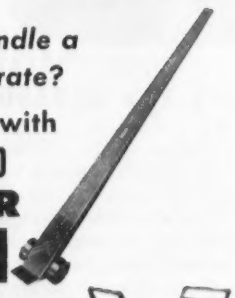
For more details circle NED-331 B7 on enclosed inquiry slip

Did you ever try to handle a HEAVY roll of paper, drum or barrel?

You can do it easily with the IRONBOUND ROL TRUK

Did you ever try to handle a HEAVY machine or crate?

You can do it easily with the IRONBOUND PRY BAR



IRONBOUND
55 Hoffman Place • Hillside, N. J.

For more details circle NED-332 B7 on enclosed inquiry slip

SAVE TIME, STEPS, MATERIALS with . . .

HANSEN ONE HAND TACKER

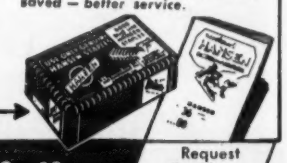
ACCESSIBILITY — portability — reliability — durability — flexibility — these are among the features that give the Hansen Tacker its tacking ability.

TAKE-UP JAW gives the Hansen accessibility. Light weight provides portability. Quality materials insure reliability. Simple design and sturdy construction provide durability. Widespread uses mean greater flexibility.

HANSEN Tackers and Staplers are made in 36 different models. Staples in 80 different lengths and widths — for every tacking and fastening job.

For Satisfactory Service Use Only Genuine HANSEN Tack-points Packed in BLUE BOX!

Only the Hansen Tacker has the Take-Up Jaw feature — which makes disassembly and assembly quick and easy. In less than a minute you can clean the channel of a Hansen, and reassemble ready for action. Result — *time saved — better service.*



A. L. HANSEN MFG. CO. Request Booklet Today!

5164 Ravenswood Ave., Chicago 40, Ill.

For more details circle NED-333 B7 on enclosed inquiry slip

Take Advantage of All the Advantages...

FERGUSON CONVEYORS

offer!

You eliminate manual handling between production operations...save space by keeping material off the floor ...coordinate men, material and machines...increase efficiency with less manual effort when you use FERGUSON gravity and power conveyors. That has been the experience of companies everywhere in many different industries using these conveyors.

Whether you're building a new plant, renovating your present plant or just want more efficient materials handling, include FERGUSON CONVEYORS in your plans. You'll like the way they cut the cost of doing business.

Write, wire or call for additional details.

HARRY J. Ferguson COMPANY
129 WEST AVENUE • JENKINTOWN, PA. • TUrner 4-4401

For more details circle NED-334 B7 on enclosed inquiry slip

For Short Cuts and Savings
in Engineering Drawing Reproduction

Kodagraph Reproduction Materials eliminate tedious retracing . . . produce better shop prints . . . simplify print production. Whether you make your own prints or use a blueprint, it will pay you to know them.

Kodagraph Repro-Negative Paper gives you positive photographic intermediates directly from blueprints and other negatives.

Kodagraph Contact Paper produces outstanding negatives in contact photocopy printers.

Kodagraph Autopositive Papers and Film produce positive photographic intermediates without a negative step; can be exposed in standard print-making equipment... processed in standard photographic solutions. Fast, easy roomlight handling!

Kodagraph Projection Papers give you highest quality enlargements from microfilm or other reduced-scale negatives.

Write today for free booklet

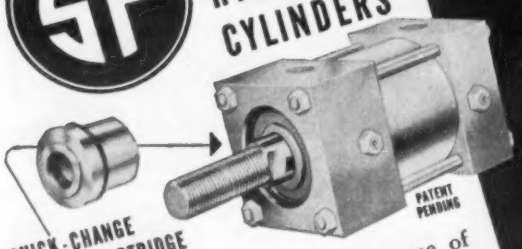
Kodagraph Reproduction Materials

EASTMAN KODAK COMPANY
Graphic Reproduction Division
Rochester 4, N. Y.

Kodak

For more details circle NED-335 B7 on enclosed inquiry slip

AIR and HYDRAULIC CYLINDERS



QUICK-CHANGE PACKING CARTRIDGE CUTS DOWNTIME

Removable packing cartridge is just one of many modern design features of S-P all-steel cylinders. Made in a wide range of mountings and bore sizes. Prompt deliveries. Send for catalog on Hydraulic Cylinders or Standard Air Cylinders or Heavy-Duty Air Cylinders. The S-P Manufacturing Corp., 30201 Aurora Rd., Solon, Ohio.

SEND FOR Catalog

THE S-P MANUFACTURING CORP.
SOLON, OHIO • IN GREATER CLEVELAND
Established 1916 A Bassett Company
ROTATING AIR AND HYDRAULIC CYLINDERS • POWER CHUCKS
NON-ROTATING AIR AND HYDRAULIC CYLINDERS
COLLET AND DRILL PRESS CHUCKS • AIR PISTONS, VALVES, ACCESSORIES

For more details circle NED-336 B7 on enclosed inquiry slip

choice of SIX TYPES MEYCO MAINLINE SAWS

the quality carbide tipped saw —AT A POPULAR PRICE!

FOUR TYPES UNI-CHIP SAWS

Your choice of rip, precision, all purpose and metal cutting saws, each in several diameters and with different number of teeth, with MEYCO's famous UNI-CHIP grind feature: alternating double-beveled cutting teeth and straight raker teeth for chip clean out and smooth cuts.

PORTABLE AND TABLE SAW BLADES

Top-flight MAINLINE quality at a popular price, to cut all woods and abrasive materials in all bore sizes for any make portable and table saws. Diameters from 5¼ to 8 inches . . . last 50 times as long as steel saws.

COMBINATION PLANER TYPE SAWS

The "work-horse" of the MAINLINE—an all-purpose carbide tipped saw that has been designed to cross cut, rip and miter efficiently in a wide variety of materials.

Ask for MAINLINE Catalog 69

W. F. MEYERS CO., INC., BEDFORD, INDIANA

For more details circle NED-337 B7 on enclosed inquiry slip

light-weight AIRETOOL air-motor GRINDER

speeds up any portable grinding or snagging operation.

For power . . . speed and economical operation you can't beat this new Airetool air-motor grinder. Handy for cleaning up welds, rough casting, deburring or any other grinding job. Weighs only 12 lbs. for easy handling yet built for rugged service. Controlled speed to 6000 RPM makes any metal removal fast and safe. Abrasive Belt attachment and Right Angle Head model also available. Write for Bulletin No. 61.

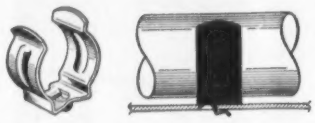
AIRETOOL MANUFACTURING COMPANY
SPRINGFIELD, OHIO

BRANCH OFFICES: New York, Chicago, Tulsa, Philadelphia, Houston, Baton Rouge
REPRESENTATIVES: in principal cities of U.S.A., Canada, Mexico, South America, England, Europe, Puerto Rico, Italy, Japan, Hawaii
EUROPEAN PLANT: Vlaardingen, The Netherlands
CANADIAN PLANT: 37 Spalding Drive, Brantford, Ontario

For more details circle NED-338 B7 on enclosed inquiry slip

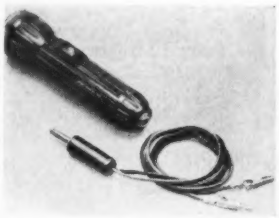
CAPACITOR CLIP
holds part in electronic devices

Rapid method of assembling capacitors and similarly shaped components in electronic devices is provided by the Speed Clip. It has a "heel and toe" spring latch in its base and is pressed into a mounting hole in the chassis by hand prior to receiving the capacitor. Fastener is offered for a wide range of panel thicknesses for component diameter from 0.375 to 1.500-in. Made by **Tinnerman Products Inc.**, Dept. 14, Box 6688, Cleveland 1, O.



For more details circle NED-339 B7 on enclosed inquiry slip

CIRCUIT CONTINUITY TESTER
combined with industrial flashlight



An industrial flashlight with built-in jack is featured by the No. 1618CT combination spotlight electrical circuit continuity tester. Working through 3-v battery supply, tester can be used to check wiring, controls, circuits, fuses, grounds, shorts, opens, broken wire, switches, limits, relays, burglar alarm systems as well as to check and set contacts. By using two testers in series, it is possible to check wiring or controls and cables from 1000 to 5000 ft long at two different places, or where two men cannot see or hear each other. Made by **Bright Star Industries, Inc.**, 600 Getty Ave., Clifton, N. J.

For more details circle NED-340 B7 on enclosed inquiry slip

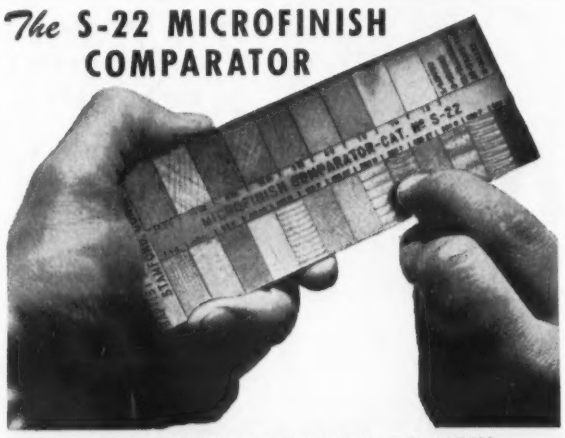
WATER CONDITIONER
keeps pipes clear without chemicals

Plant piping systems and equipment using water can be kept clear of hard water scale and corrosion with this Packard water conditioner. Device functions

without chemicals and has no moving parts. It comprises a dispersing cell containing a kinetic energy generator, and a homogenizing chamber. Together, the two units are reported to impart added energy to atoms of the water solution. This action prevents scale from forming, as well as gradually dissolving scale already existent and keeping it in suspension. Made by **Packard Water Conditioner Div., Inc.**, Dept. D, Box 719, Jacksonville, Fla.

For more details circle NED-341 B7 on enclosed inquiry slip

The S-22 MICROFINISH COMPARATOR



GAGE SURFACE FINISH TO NEW A.S.A. STANDARDS - Quickly - Accurately

This convenient pocket comparator has 22 precision surfaces for specifying and controlling finish to the new A.S.A. Standard B46.1 - 1955. Electroformed in durable corrision-resistant nickel, the S-22 Comparator provides every department with the most inexpensive method for uniform, accurate control of finish characteristics.

Save valuable time in engineering, inspection, quality control — eliminate costly overfinishing in purchasing and production. $15.00 complete with leather case.

Available from leading industrial distributors, or write

FAIRFIELD DEVELOPMENT LAB., INC.
(SUCCESSOR TO BAPTIST MACHINE CO.)
40 Ludlow Street, Stamford, Conn.

For more details circle NED-342 B7 on enclosed inquiry slip

A Severance CARBIDE ECONO-SINK WILL GIVE YOU —

- INCREASED ACCURACY
- MORE PRODUCTION
- SMOOTHER SEATS
- LONGER CONSISTENCY OF OPERATION
- LESS DOWN-TIME
- AND A COMPLIMENT FROM THE BOSS FOR SUGGESTING THE CHANGE

WITH THE NEW Severance CARBIDE ECONO-SINK YOU GAIN ALL THE ADVANTAGES OF CARBIDE TOOLING - AND AT LESS COST per Countersunk Hole

Ask for Information & Prices TODAY!

Ask for a Severance catalog today!

Severance TOOL INDUSTRIES INC.
761 Iowa Avenue Saginaw, Michigan

For more details circle NED-343 B7 on enclosed inquiry slip

Low-cost ACORN LOCK NUTS

Self-locking action assures tight assemblies

TYPE C (closed top) Pleasing dome appearance

Dress up your product

Hold tight under vibration

PALNUT Acorn Types cost much less than ordinary acorn or cap nuts and have a built-in spring locking action that keeps parts tight without lockwashers. Light in weight—speedily applied with hand or power tools. Many sizes and finishes.

TYPE CK (open top) Prevailing torque

Used as a load carrying nut, Acorn Type CK holds parts tight, provides pleasing appearance, requires less critical screw lengths.

Used as an adjusting nut, prevailing torque holds tight anywhere on screw—maintains desired settings of adjusting screws.

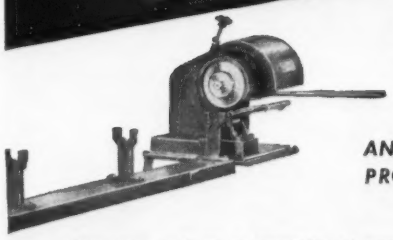
• Send details of your application for Free Samples and data. Complete literature on request.

THE PALNUT COMPANY
Subsidiary of United-Carr Fastener Corp.
45 Glen Road, Mountainside, N. J.
Canada: P. L. Robertson Mfg. Co., Inc., Milton, Ont.

ACORN TYPE PALNUT TRADE MARK LOCK NUTS

For more details circle NED-344 B7 on enclosed inquiry slip

ZIP... ZIP...



CUTS TUBES FAST

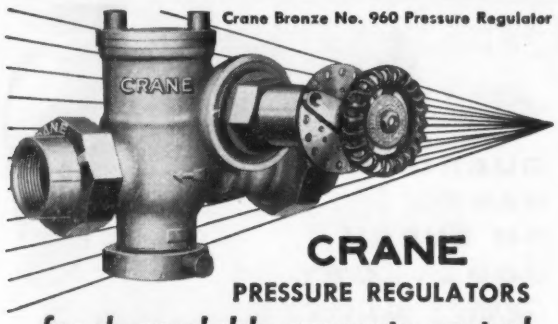
AND WE'LL PROVE IT . . .

Simply send us a sample of your tubes, we'll show you how clean and fast a Continental Rotary No. 1 Cut-Off Machine cuts, and return the pieces for your inspection along with actual time studies.

It zips right through tubes from ⅜" to 1¼" O. D., from light gauge to 16-gauge wall thicknesses. Cuts up to 2,000 pieces an hour, effortlessly, with just a stroke of the handle. Convenient, adjustable table with 5 Dual-Roller Forks. Also available, Cut-Off Machines for pipes and tubes up to 12" diameter, air or hand-operated. Request Catalog.

Continental MACHINE CO.
SINCE 1919
1952 N. MAUD AVE. • CHICAGO 14, ILL.

For more details circle NED-345 B7 on enclosed inquiry slip



CRANE
PRESSURE REGULATORS
for dependable accurate control of steam and air pressure

These regulators are particularly suitable for use in modern process work, on vulcanizers, cookers, dryers, paper machines, heating systems, air blasts and many other services.

Outlet pressures not affected by inlet fluctuations. No pressure build-up.

Sizes ½ to 2 inches. For maximum inlet pressures of 250 lb. air or 250 lb. steam up to 450°. See your local Crane Representative or write for literature.

CRANE VALVES & FITTINGS

PIPE · KITCHENS · PLUMBING · HEATING

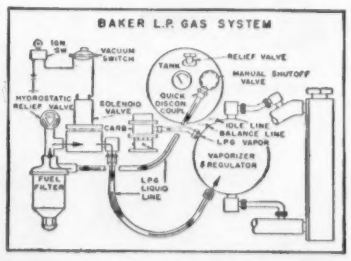
Since 1855—Crane Co., General Offices: Chicago 5, Ill.
Branches and Wholesalers Serving All Areas

For more details circle **NED-346 B7** on enclosed inquiry slip

BAKER offers LP gas fork trucks in 2000 to 7000 lb. capacities

The complete Baker line includes the BAKER LP gas fork trucks for those desiring the cost savings, cleaner operation, and other advantages provided by liquefied petroleum gas.

The Baker LP gas truck is powered by an engine specially designed for LP gas, not just a conversion unit. The special LP engine is provided with high compression head for maximum efficiency. Among the features are a special cold manifold and hot thermostat for cooler operation. Stellite-faced exhaust valves and solid Stellite inserts assure greater dependability and longer life. Complete vaporization and more efficient combustion mean lower oil consumption, less down time and reduced maintenance costs due to minimum cylinder wear. Fuel tank conveniently located behind the driver can be removed and full tank installed in less than a minute.



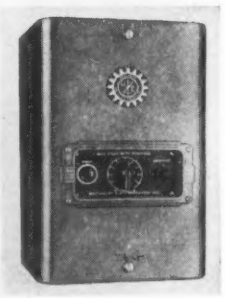
Arrows trace the flow of LP gas from the tank through the filter to the vaporizer and regulator before it enters the engine. The hydrostatic relief valve opens the system before dangerous pressure is reached in event of high ambient temperature changes. Automatic fuel shut off is provided by solenoid valve and vacuum switches when engine stops. For maximum efficiency, the vaporizer preheats the LP gas before it passes to the regulator and the regulator reduces the pressure before the gas enters the carburetor.

For full information phone or write

Baker industrial trucks
THE BAKER-RAULANG COMPANY
1245 WEST 80th STREET • CLEVELAND 2, OHIO
A Subsidiary of Otis Elevator Company

For more details circle **NED-347 B7** on enclosed inquiry slip

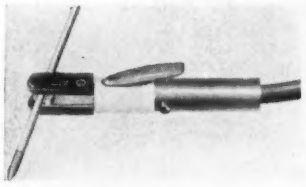
PROXIMITY CONTROL
detects insulator or conductor



Without making contact with the surface, the MEK-3030 electronic proximity control detects the presence of an insulator or conductor at the detecting point. Use can be as a limit switch; level control for soap, oil, coal, etc.; or as an interface control between two dissimilar fluids. Input voltage is 115 v, 60 cycles, line consumption is 25 va and relay capacity is 115 v, 5 amp. Contacts are single-pole double-throw. Several types of detecting elements are offered. Made by **Machinery Electrification, Inc.**, Dept. NED, 35 Hudson St., Northboro, Mass.

For more details circle **NED-348 B7** on enclosed inquiry slip

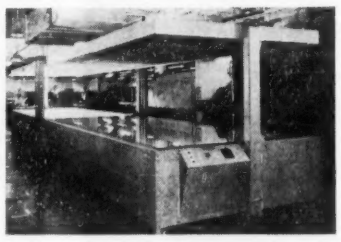
CUTTING & GOUGING TORCH
has pushbutton compressed air valve



Heat and impact resistant molded plastic insulators, glass laminate sleeve which protects handle from burning, pushbutton air valve, hand-fitting molded upper arm handle and cable connection inside the handle are features of redesigned model H-3 cutting and gouging torch. Retained from original model G-3 are rotating head and concentric cable. Torch uses only an electric arc and compressed air to cut, gouge, groove or bevel any metal. Made by **Arcair Co.**, 423-A S. Mt. Pleasant St., Lancaster, O.

For more details circle **NED-349 B7** on enclosed inquiry slip

TEMPLATE PRINTER
produces masters photographically



This giant contact printer is adaptable for production line making of master layouts and templates ranging up to 72 x 360 in. overall. Template material can be metal, plywood, plastic or other material which is spray-coated with photo-sensitive material. Original layout is made on glass cloth, and exposure to 120 special fluorescent lights is made in machine's vacuum frame which assures perfect flat contact. Exposed print is then developed and fixed. Smaller size contact printers ranging up from 38 x 50-in. sizes are also suitable for printed circuit and other reproduction type work. Made by **Miller-Trojan Co.**, Dept. NED, 1083 W. Main St., Troy, O.

For more details circle **NED-350 B7** on enclosed inquiry slip

BIN STUCK LATELY?

There are two ways to handle a stuck bin. You can bang it loose with a sledge hammer, and damage your equipment; or you can install Cleveland Vibrators and put an end to your problem. The first way is slow and costly. But the second way is efficient, fast, and inexpensive.

How about you! Are your schedules suffering from stuck bins? The low cost of Cleveland Vibrators will surprise you, and the results will definitely please you. Why not get the whole story with a two-cent post card.

Air or Electric

Portable or Permanent

Silent or Standard

THE CLEVELAND VIBRATOR CO.
2744 Clinton Avenue, Cleveland 13, Ohio

For more details circle **NED-351 B7** on enclosed inquiry slip

SP AIR and HYDRAULIC ROTATING CYLINDERS

Balanced for High RPM

PATENT PENDING

Original equipment on famous machine tools, S-P Rotating Cylinders are adaptable to many other machines. Bore sizes for air: 3", 4½", 6", 8", 10", 12", 14". For hydraulic: 3", 4½", 6", 8" and larger. All balanced for high rpm. Prompt deliveries. Send for catalogs specifying air or hydraulic. The S-P Manufacturing Corp., 30201 Aurora Rd., Solon, Ohio.

SEND FOR *Catalog*

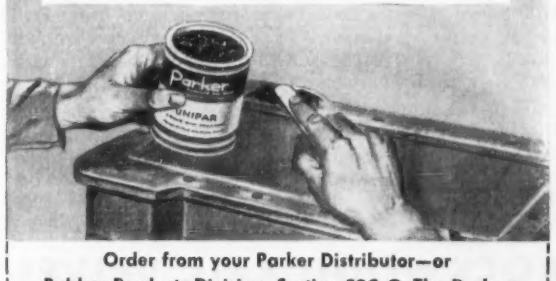
THE S-P MANUFACTURING CORP.
SOLON, OHIO • IN GREATER CLEVELAND
Established 1916
A Bassett Company
ROTATING AIR AND HYDRAULIC CYLINDERS • POWER CHUCKS
NON-ROTATING AIR AND HYDRAULIC CYLINDERS
COLLET AND DRILL PRESS CHUCKS • AIR PISTONS, VALVES, ACCESSORIES

For more details circle **NED-352 B7** on enclosed inquiry slip

Use Parker *Unipar* for sealing threaded joints

- Universal thread and gasket compound.
- Easy to apply. Lubricates and seals. Easy to disconnect.
- Seals water, steam, gas, oil, gasoline, etc.
- Extreme pressures; temperature range −70° to +300°F.
- Once you try it, you'll always use it.
- Call us for immediate delivery of Parker *Unipar*.

Parker
Hydraulic and fluid system components



Order from your Parker Distributor—or Rubber Products Division, Section 520-Q, The Parker Appliance Co., 17325 Euclid Ave., Cleveland 12, Ohio

For more details circle **NED-353 B7** on enclosed inquiry slip

AJUSTRITE®

SWINGING BRACKET CHAIRS

FOR MOUNTING ON THE TABLE, BENCH, WALL OR MACHINE

The seat raises and lowers a total of 8 inches. The bracket swings 15½ inches from attaching plate. Contains all the adjusting features of regular AJUSTRITE chairs. Made of 16 ga. steel tube—electrically welded and equipped with powdered iron bearings—lifetime lubricated. Tested with 600 lb. load. Special mounting brackets to serve many individual needs, will be developed on application.

ADVANTAGES OF SWINGING BRACKETS

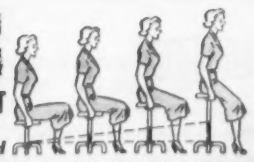
(a) Allows each worker to swing in as close to his operation as he may care to. (b) Keeps chairs off of floors. (c) Stops interchange of chairs from one department to another.

GUARANTEED against failure due to defective material or workmanship for 10 years.

FREE TRIAL Try for 30 days (no obligation) the many advantages of AJUSTRITE Swinging Bracket Chairs. Ask for catalog.

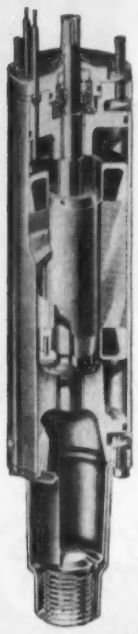
AJUSTO EQUIPMENT COMPANY
515 Conneaut St. Bowling Green, Ohio

SPLIT SECOND ADJUSTMENT *. . . to any Height Desired*



For more details circle **NED-354 B7** on enclosed inquiry slip

J & H Submersible Motor



meets diverse pumping conditions

- Operates in water. Can be easily modified to operate in gasoline, crude oil and many other fluids.
- Flexible length/diameter ratio to fit casing, tank, pipeline or pump-motor condition you specify.
- Long service life, low maintenance.
- Horsepower ratings from ½ thru 5 hp at 3450 rpm.

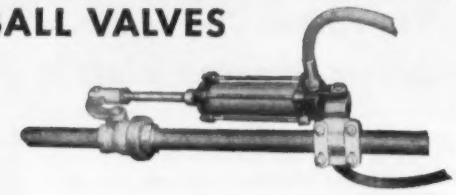
Send for Data!

For motor data, write on your company letterhead to: Jack & Heintz, Inc., 17629 Broadway, Cleveland 1, Ohio.

JACK & HEINTZ

For more details circle NED-356 B7 on enclosed inquiry slip

ROCKWOOD AIR-OPERATED BALL VALVES



For remote control use

Here's the way to operate valves in hazardous locations or valves installed in difficult and hard-to-get-at places. It's the Rockwood new air-operated Ball Valve. This new unit can be mounted in FOUR different positions around the Rockwood Ball Valve. It operates valve smoothly and efficiently. One valve or several valves can be controlled from one central control board. Comes in a complete package unit. Ball valve, cylinder, special handle and mounting bracket can also be bought separately. Can be operated with various types of controls.

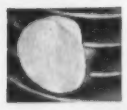
This complete package unit is available in sizes from ½" thru 2" in bronze and 3" and 4" in cast steel. Additional features are also available on request. Write today for full information — free booklet. Rockwood Sprinkler Company, 1349 Harlow St., Worcester 5, Massachusetts

ROCKWOOD BALL VALVES

For full round flow efficiency

For more details circle NED-357 B7 on enclosed inquiry slip

NEW—self-locking UNBRAKO socket head cap screws



The Nylok* self-locking feature locks these screws securely in place, seated or unseated, wherever you stop wrenching! They won't work loose. Can be used repeatedly. Tough, resilient nylon locking pellets permanently installed. Successfully withstand temperatures ranging from —70 to 250°F. Familiar UNBRAKO knurled heads for sure finger grip and fast assembly—accurate hex sockets for positive, nonslip internal wrenching. Heat treated alloy steel, controlled fillets, continuous grain flow lines, fully formed Class 3A threads for maximum strength and exact fit. Can be used as adjusting screws. Pellets act as liquid seals. Standard sizes from #6 to 1 in. diameter. Also available in plated finishes and in stainless steel. Write for Bulletin 2193. Unbrako Socket Screw Division, STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

*TM Reg. U.S. Pat. Off., The Nylok Corporation

UNBRAKO® SOCKET SCREW DIVISION

STANDARD PRESSED STEEL CO.

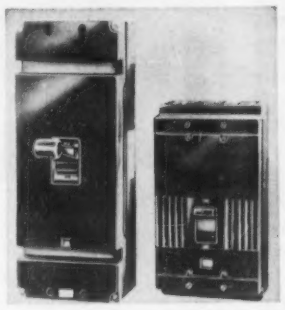
SPS

JENKINTOWN PENNSYLVANIA

Unbrako Products are sold through Industrial Distributors

For more details circle NED-358 B7 on enclosed inquiry slip

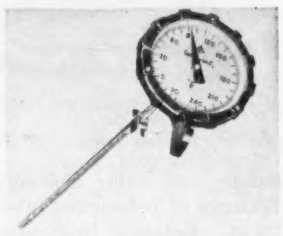
CIRCUIT BREAKER
800-amp control is compact



This KM-frame 800-amp molded case circuit breaker is 6½ in. shorter than conventional breakers of the same rating. One frame size can now be used for all ratings from 125 through 800 amp, with space savings up to 30 per cent in ratings above 400 amp. Breakers are available in two and three-pole types for up to 600 v ac. They are UL-listed through 600 amp, with larger units now being tested. Made by **General Electric Co.,** Circuit Protective Devices Dept., Section TC-1, 41 Woodford Ave., Plainville, Conn.

For more details circle NED-359 B7 on enclosed inquiry slip

MULTIPURPOSE THERMOMETER
range is from —40 to 250° F



Suited for indoor and outdoor applications, the Tempoint multipurpose dial thermometer has a range of −40 to 240° F. The 2½-in. aluminum dial has easily read black numerals and a red indicating pointer. A 9-in. stainless steel stem and an adjustable holding sleeve on the stem makes it self-supporting when inserted into ducts. Made by **Bacharach Industrial Instrument Co.,** H & R Div., 200 N. Braddock Ave., Pittsburgh 8, Pa.

For more details circle NED-360 B7 on enclosed inquiry slip

SUBMERSIBLE SUMP PUMP
for portable or permanent pit use

UL-rated snap-action switch mechanism, sealed by a neoprene diaphragm in the motor housing, is incorporated in the SS-20 submersible sump pump. Switch is actuated by a Hi-Lo control through a solid neoprene weight and durable plastic float which controls the water level. The 11-in. high carryable type unit is suited for portable use or permanent pit installation. Discharge outlet can be connected to plastic and standard metal piping. Both the hermetically sealed 1/3-hp motor and bronze-encased pump are completely submersible. The 33-lb pump discharges 3100 gph against a 5-ft head and 1800 gph at 10 ft. Made by **Barnes Mfg. Co.,** Dept. ND, Mansfield, O.

For more details circle NED-361 B7 on enclosed inquiry slip

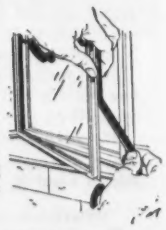
DOR-TITE

DA PRODUCTS SINCE 1910

for Sealing! Cushioning! Insulating! Silencing!

Air-tight plastic covering on the adhesive keeps DOR-TITE's adhesive *extra tacky*

Here's the soft, resilient sponge rubber stripping that solves countless problems . . . around windows, doors, etc. DOR-TITE installs fast thanks to factory-applied *extra tacky* adhesive. DOR-TITE stays put . . . never stretches . . . never creeps. Available in all popular sizes.



Installs in seconds!

SPONGE RUBBER for • Pads • Cushions • Gaskets • Mountings

Available in all popular sizes

FREE SAMPLES

Write on your letterhead for samples of DOR-TITE and/or SPONGE RUBBER Dept NE-2

DURKEE ATWOOD V-BELTS

DURKEE-ATWOOD CO. Minneapolis 13, Minn.

For more details circle NED-362 B7 on enclosed inquiry slip

GUARD HANDS ON EVERY JOB . . . GET GRANET GLOVES

Give your workers the protection they need in handling chemicals, oils and abrasive materials. Give them GRANET gloves — fully coated or palm coated with neoprene, rubber, or plastic for positive, safe, non-slip grip. Ask your distributor.

GRANET gloves are made for every job, in a complete range of styles. They outwear ordinary gloves yet cost no more. Test GRANET gloves in your plant now, without cost or obligation. State type of use, so that we can provide correct glove.

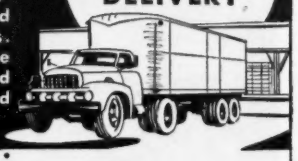
GRANET THE GRANET CORP. 15 LORING DRIVE, FRAMINGHAM, MASS.

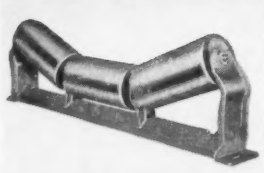
For more details circle NED-363 B7 on enclosed inquiry slip

SAVE TIME, WORK and MONEY with . . . S-A STANDARD INDUSTRIAL PRODUCTS!

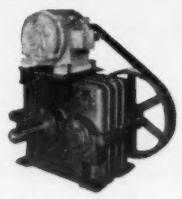
SA offers a complete line of time-tested industrial products that are STOCK ITEMS and available for IMMEDIATE DELIVERY. You'll find these products a real aid in modernizing plant operations and reducing operating costs. All are designed to increase manpower efficiency and productivity with added working safety.

IN STOCK FOR IMMEDIATE DELIVERY



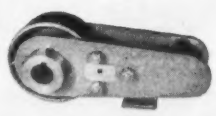


745 Belt Conveyor Idlers
Write for Bulletins 355 and 1454-A



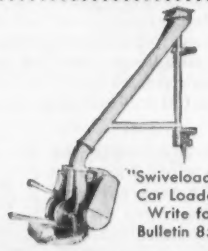
"SACO" Speed Reducers
Write for Bulletin 643

Car Pullers and Spotters
Write for Catalog 753

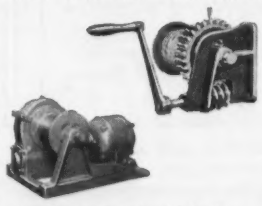


Holdbacks for Conveyors and Elevators
Write for Bulletin 155

Portable Box Car Loaders
Write for Bulletin 948



"Swiveloader" Car Loaders
Write for Bulletin 854



Hand and Motorized Winches
Write for Bulletin 853

FREE CATALOG

WRITE TODAY for Catalog No. 60 . . . contains comprehensive data on the complete line of "cost-saving" S-A Standard Industrial Products.

STANDARD PRODUCTS DIVISION

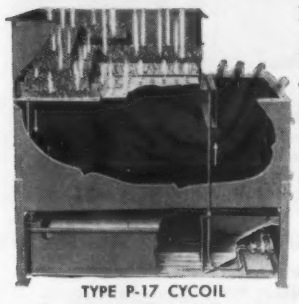
STEPHENS-ADAMSON MFG. CO.

12 Ridgeway Ave. Aurora, Illinois

For more details circle NED-364 B7 on enclosed inquiry slip

NEW AAF AFTER-CLEANER

- traps finest metalworking dust
- lowers cleaning costs
- saves money on fuel bills



TYPE P-17 CYCOIL

By collecting *finest* metalworking dust, AAF's new P-17 Cycoil Oil Bath After-cleaner permits recirculation of cleaned air. This saves fuel dollars, prevents oxidation to building walls and eliminates necessity of "dumping" exhausted air to the outside. In *new* installations of dust control equipment, there's an *added* advantage. The P-17 Cycoil eliminates costly duct work through the building structure. Complete dust collection units may be moved at any time to conform with revision in plant layout.

Call your local AAF representative, or write direct for P-17 Cycoil information.

American Air Filter
COMPANY, INC.
391 Central Avenue, Louisville 8, Kentucky
American Air Filter of Canada, Ltd., Montreal, P. Q.

For more details circle NED-365 B7 on enclosed inquiry slip

There's an Easier Way!

"Tough nut" cutting problems needn't keep you jumping! Now . . . zip through 3/16" aluminum, Fiberglas, plastics, plastic laminates, even 16-gauge steel, with minimum effort . . . maximum speed . . . with the KETT Panel Master Saw. Its performance is outstanding on metal laminates such as Mirawal, Metlwal, Met-L-Wood and Amorply. Two-inch diameter saw blades give full 3/8" depth cut. Leaves accurate, smooth milled edge that requires no sanding or finishing. Amazingly easy to use . . . extra rugged for long, hard service.

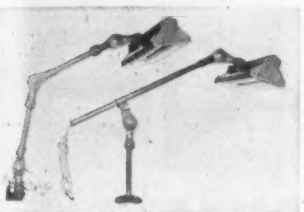
Powered by heavy duty, industrial type 110 volt AC/DC portable 5/16" capacity electric drill motor. Ball bearing equipped drive for smoother operation.

Write for Catalog 14

THE KETT TOOL COMPANY
5051 Madison Rd., Cincinnati 27, O.

For more details circle NED-366 B7 on enclosed inquiry slip

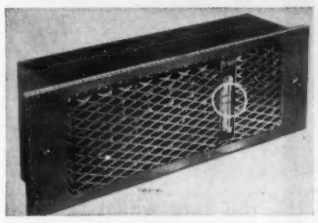
FLUORESCENT LAMPS for machine, bench and desk use



Two 8-w T-5 fluorescent tubes are incorporated in each of two Localite lamps. Both models have frictional disk and collar joints for directing light from the reflector-equipped units. Universal base model mounts on machine tools and equipment for illuminating precision work areas, while pedestal base model is for bench, table or desk mounting for lighting assembly, inspection and other operations. Various arm lengths are offered. Made by **Fostoria Pressed Steel Corp.**, 1240 Harris Rd., Fostoria, O.

For more details circle NED-368 B7 on enclosed inquiry slip

COOLING PANEL for enclosed relay racks

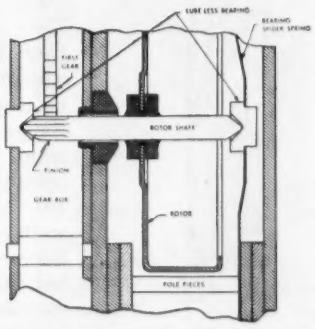


Clean, cooling air is propelled through standard 19-in. enclosed relay racks or consoles by the model RF cooling panel. Built-in fan pulls air through 2-in. thick glass fiber filter. A pilot (white circle in photo) automatically indicates when filter replacement is due. Panel can handle 2000-w dissipation with 40° F temperature rise and can operate continuously in 125° F ambients. It is 7 in. high and weighs only 7 lb. Made by **Rotron Mfg. Co.**, Schoonmaker St., Woodstock, N. Y.

For more details circle NED-369 B7 on enclosed inquiry slip

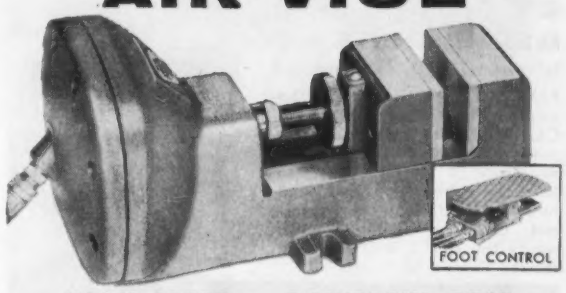
TIMER MOTOR operates under 150° F conditions

No lubrication is required in this constant torque synchronous motor designed for use in timers subjected to temperatures up to 150° F. This feature eliminates formation of gummy residue which is a cause of timer motor failure under conditions of heat. Rounded ends of the rotor shaft ride in cup-shaped bearings. Uses include timers for gas and electric ranges, washers and dryers, conveyor systems, packaging machinery, plastic molding machinery, diesel generators, printing machinery and circuit breakers. Made by **Lux Clock Mfg. Co.**, Dept. MM, 95 Johnson St., Waterbury, Conn.



For more details circle NED-370 B7 on enclosed inquiry slip

Speedy AIR VISE



HIGH SPEED · POWERFUL GRIP

New, improved model speeds up all repeat operations—*milling, drilling, tapping, punching, bending, riveting.* Both hands left free to produce more! Light squeeze to 2250 pounds pressure! Extra thick jaws for attaching jigs. Jaws open to 3-inches; 1/16" to 5/8" maximum travel. Complete with foot control, air hose and fittings..... **$44.00**

SPEEDY 1-TON AIR PRESS
Does the work of expensive presses! Power factor 15 times air line pressure. 5-inch throat; Ram 0 to 5"; stroke 5/8"; table 5" x 5". Operated by foot or fingertip controls. **$85.00**

Order from Your Supplier or Write for Air Tool Catalog

W. R. BROWN CORP., 2647 N. Normandy Ave., Chicago 35

AIR TOOLS • AIR VISES • AIR REGULATORS • FILTERS • COMPRESSORS

For more details circle NED-371 B7 on enclosed inquiry slip

Why settle for less?

HERE'S THE ONE ADHESIVE WITH—

—The Strength of Ten Men

that answers any industrial bonding need—resists a pull of up to 1,500 pounds per square inch.

—The Bond-Ability

that makes it the handiest adhesive in your shop—no matter what materials you bond.

—The Easy Use

that makes child's play of even the toughest bonding jobs—saves you time and effort.

AVAILABLE from industrial jobbers or mill supply houses everywhere or write: Goodyear, Chemical Division, Coatings Dept., Akron 16, Ohio, for full information.

Pliobond BY **GOODYEAR**

"BONDS ANYTHING TO ANYTHING"

Pliobond—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

For more details circle NED-372 B7 on enclosed inquiry slip

The POWRWORKER® platform

. . . BUILT FOR EXTRA-ROUGH JOBS!

When a job calls for extra-heavy loads, it's a natural for the Powrworker Platform truck. Here's a 10,000-lb. capacity machine that ignores rough treatment. Yet this truck leads in ease of control and exclusive safety features. For maintenance it's the most accessible truck of its kind. Compact, rugged, the Powrworker Platform is built for the toughest jobs in your plant. Available in capacities from 4,000 to 10,000 lbs. For a detailed construction booklet write or use the reader service card.

CLARK® EQUIPMENT

POWRWORKER SECTION
Industrial Truck Division
CLARK EQUIPMENT COMPANY
Battle Creek 21, Michigan

For more details circle NED-367 B7 on enclosed inquiry slip

NEW... SPRAY BELT DRESSING

is easy to apply—no waste!

More for your money! The convenient NEW aerosol CLING-SURFACE dispenser makes it EASY to apply to multiple V-Belt drives; to leather, rubber covered and hair belts. Here's the convenient, easy, on-the-job way to apply the BEST Belt Dressing made. There's no waste.

33% MORE BELT DRESSING

gives up to 5 times the "mileage".

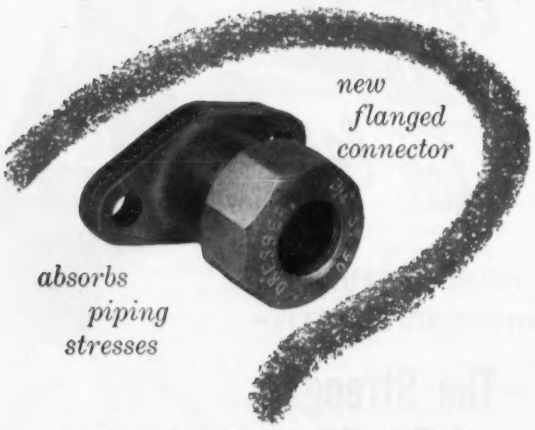
Guarantees slip-free operation for all belts. Lasts up to 5 times longer than other spray dressings. Keeps belts pliable, moisture proof. A very little goes a long way. CLING-SURFACE is the ECONOMICAL Belt Dressing.

Write for our generous trial offer

CLING-SURFACE CO.
1045 NIAGARA ST. • BUFFALO, NEW YORK

▲ For more details circle NED-373 B7 on enclosed inquiry slip ▲

Can you use this new fitting?



LOOK AT THESE BIG ADVANTAGES!

- Provides ideal, nonrigid take-off from engines, machines, equipment.
- Rugged—made to outlast the piping.
- Conventional flange at one end. Other end has flexible compression seal.
- Eliminates threading, exact pipe fitting.
- No exposed threads to invite corrosion.
- Takes up pipe misalignment, absorbs vibration.
- Ample pipe entrance—eliminates strain on piping.
- Suitable for gas, oil, water, air, gasoline, brine and many chemicals . . . where temperatures do not exceed 215°F. Sizes thru 2".

Write today for complete information.

DRESSER MANUFACTURING DIVISION

30 Fisher Ave., Bradford, Pennsylvania

▲ For more details circle NED-374 B7 on enclosed inquiry slip ▲

cut pumping costs with

JABSCO INDUSTRIAL PUMPS

Model 2187-50
PORTABLE PUMP & MOTOR UNIT
½" Port Size—With Vacuum Switch

- INSTANTLY SELF-PRIMING
- SIMPLE, COMPACT, ONLY ONE MOVING PART
- DURABLE NEOPRENE IMPELLER
- SELF-LUBRICATED
- TROUBLE-FREE OPERATION

HERE'S another Jabsco industrial pump—designed and built for chemical, pharmaceutical and other industrial applications. Ideal for transfer of various liquids and acids—sump drainage, coolant pumping, general transfer, pulp in solution, filtering, brines, plating solutions—even fluids containing foreign matter or particles, silt, crystals, and other gritty materials. Bronze, stainless steel or plastic construction is available to *solve your specific* pumping problems.
Pumps either light or heavy viscous liquids. Temperature ranges from 35° to 180° F. Write for a Jabsco factory recommendation for your own needs. Specify application, fluid pumped, temperature, pressure, etc.

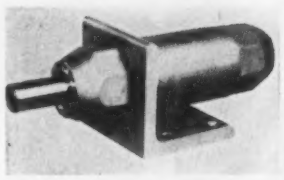
FREE—send for catalog sheets, detailed information... no obligation, of course!

PATENTED AND PATENTS PENDING

JABSCO PUMP COMPANY
2031 Lincoln Street, Burbank, California

▲ For more details circle NED-375 B7 on enclosed inquiry slip ▲

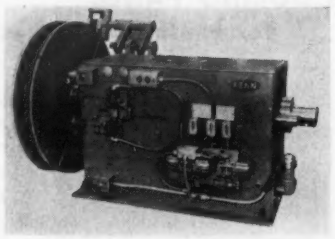
IMPACT TOOL ATTACHMENT
used on presses, operates on 20 psi



Marking for identification and scrap control, light piercing, staking and riveting can be done with this pneumatic impact tool attachment for drill and arbor presses, or special machines. Tool operates on line pressure as low as 20 psi and can be actuated electrically by solenoid or manually by poppet valve. Having only one moving part, tool will stand up under hundreds of thousands of impacts without sign of wear. Made by **Air-Impac Co.**, 920 Walnut, Flint 1, Mich.

▲ For more details circle NED-376 B7 on enclosed inquiry slip ▲

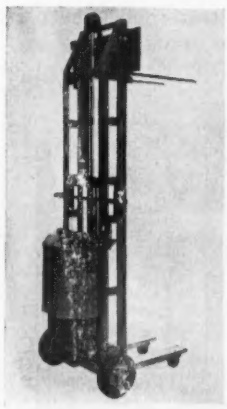
HYDRAULIC TAKE-UP REELS
used with wire flattening mills



Floor-mounted model 2310 hydraulic traversing take-up reel used in combination with wire flattening mills features 3-in. diameter spindle and a 10-in. stroke. Any combination of traverse and adjustment across the roll face which adds up to 10 in. can be made. Reel will coil maximum of 2000 lb of stock with maximum tension of 300 lb. It can mount a drum with 16-in. ID, 36-in. OD and face of 9 in. Reel can be driven by its own motor with controls to provide constant tension. Made by **Fenn Mfg. Co.**, 99 Fenn Rd., Newington, Conn.

▲ For more details circle NED-377 B7 on enclosed inquiry slip ▲

HYDRAULIC LIFT TRUCKS
pedal and battery powered models



Sixteen models in line of Ohio automatic hydraulic lift trucks pick up and release automatically at the proper height. They are adjustable for loads from 1000 to 1250 lb and are offered in pedal operated and battery powered models. Range of lifting heights is from 50 to 69 in. in pedal operated units and from 68 to 104 in. in battery powered models. Designed for work in narrow aisles, trucks have welded steel frames, manually operated safety brakes, roller bearing wheels, molded-on rubber wheels and ¾ x 4 x 30-in. lifting forks. Made by **Portable Lift Trucks Inc.**, 2861 Sidney Ave., Cincinnati 25, O.

▲ For more details circle NED-378 B7 on enclosed inquiry slip ▲

Swartwout Roof Ventilators
for every industrial, commercial and institutional need

Gravity Ventilators
Airmover — Dexter Heat Valve
Gravity Valvent — Rotary
Low Line Gravity

Powered Ventilators
Airjector — Powered Valvent
Airlift — Whirlout
Low Line Powered — Airlift Junior

Louvers
Airlouver — Industrial Louver

Fire Ventilation
Swartwout Fire-Valve

Write for Bulletin 352C

EXPERIENCED VENTILATOR MANUFACTURERS SINCE 1904

18511 Euclid Avenue, Cleveland 12, Ohio

The Swartwout Co.
Roof Ventilators and Ventilating Louvers
POWER PLANT EQUIPMENT • PROCESS INDUSTRY CONTROLS

▲ For more details circle NED-379 B7 on enclosed inquiry slip ▲

FREE SAMPLE!

FLEXIBLE, LIQUID-TIGHT CONDUIT OUTLASTS ORDINARY METAL CONDUITS

Sealtite* flexible, liquid-tight electrical conduit is rapidly replacing rigid conduit in many plants for certain installations. It's easier, less costly to install (especially in cramped spaces) and actually outlasts ordinary metal conduits in moist or corrosive atmospheres. A tough, extruded polyvinyl jacket seals out water, dust and corrosive fumes . . . protects wiring from weather, oil and chemicals. Sealtite can be installed indoors or out; is ideal where conduit must flex or be moved, absorb vibration or meet misaligned outlets. Write for free sample and Booklet S-537 giving full information. Address: *The American Brass Company, American Metal Hose Division, Waterbury 20, Conn.*

*Trademark 57197

SEALTITE flexible, liquid-tight conduit . . . AN ANACONDA® PRODUCT

▲ For more details circle NED-380 B7 on enclosed inquiry slip ▲

the impulse that revolutionized steam trapping

● Twenty years ago Yarway applied a unique theory of thermodynamics to steam traps—and gave industry the amazing Yarway Impulse Steam Trap.

Today—over a million Yarway Impulse Steam Traps later—advantages like the following keep Yarways selling at a record rate:

- **Quick heat-up and even temperatures**
- **Good for all pressures**
- **Small size—light weight**
- **Only one moving part**
- **Stainless steel**
- **Immediately available from over 270 Industrial Distributors**

Write for free Trap Selector or Trap Catalog.

YARNALL-WARING COMPANY
131 Mermaid Ave., Philadelphia 18, Pa.

YARWAY IMPULSE STEAM TRAP

OVER 1,000,000 YARWAY IMPULSE STEAM TRAPS USED

▲ For more details circle NED-381 B7 on enclosed inquiry slip ▲

SPECIFY OHIO GEARS

Rigid inspection control combined with the most modern gear cutting equipment produce top-quality gears at OHIO. The importance of using good gears cannot be over-emphasized. Real satisfaction is assured with Ohio Gear products.

Get in touch with our nearest distributor or contact the factory direct for efficient service.

Stock Gear catalogs furnished on request.

ESTABLISHED 1915 OHIO GEARS

THE OHIO GEAR CO. • 1320 E. 179th St. • Cleveland 10, Ohio

▲ For more details circle NED-382 B7 on enclosed inquiry slip ▲

Now, ONE Blowpipe Truly Handles ALL Welding and Heating Jobs

The OXWELD W-45 is the only manual blowpipe with a selection of heads (2 to 300 cu. ft. per hr. capacity) capable of handling any oxy-acetylene welding or heating need. Its companion CW-45 Cutting Attachment cuts steel up to 8 in. thick. Additional features such as an exclusive handle shape that reduces fatigue, a spring-lock coupling that permits instant head changes without a wrench, and "O" ring gas seals help to bring you tomorrow's performance standards today. Ask for a demonstration, or write for free booklet, F-8684, today.

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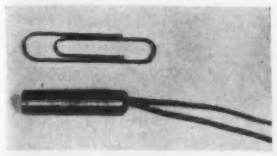
Offices in Other Principal Cities
In Canada: LINDE AIR PRODUCTS COMPANY
Division of Union Carbide Canada Limited, Toronto

"Oxweld" is a trade-mark of UCC

▲ For more details circle NED-383 B7 on enclosed inquiry slip ▲

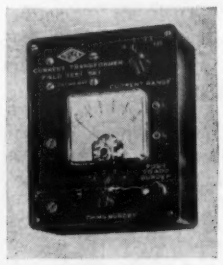
MINIATURE THERMOSTAT controls up to 1-amp 110-v load



Offered in either two-wire or grounded types in plain, flanged or screw-head mounting, Tini-Tempswitch miniature thermostat is available in temperature ranges of 50 to 75° F, 150 to 275° F and 250 to 275° F. It measures only ¼-in. OD and 1 in. long, yet it handles loads up to 1 amp 110 v. It is particularly suited for built-in temperature control functions. Made by **Scaico Controls Inc.**, 435 Market St., Palmyra, N. J.

▲ For more details circle NED-385 B7 on enclosed inquiry slip ▲

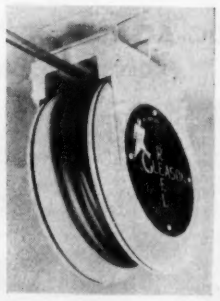
TRANSFORMER TEST SET provides 0.5, 1, 2 or 4-ohm burdens



Current transformer installations can be quickly checked for short-circuits, faulty connections, instrument tampering and grounding with this transformer field test set. Instrument affords resistance burdens of 0.5, 1, 2 or 4 ohms. At nominal current of 5 amp, these correspond to 12.5, 25, 50 or 100 va burdens, respectively. Lower values are for testing small size, low capacity current transformers used on low-voltage installations. Any four burden values other than those listed may be ordered. The 2½-in. panel instrument is easily read. Made by **Eastern Specialty Co.**, 3617 N. Eighth St., Philadelphia 40, Pa.

▲ For more details circle NED-386 B7 on enclosed inquiry slip ▲

AUTOMATIC CABLE REEL powered by spring motor



Electric power cord for monorail hoists and similar in-motion equipment is stretched, lifted or retrieved by this model MD-21 automatic take-up reel. It accommodates up to 45 feet of No. 14 four-conductor cord rated 15 amp, 550 v. Winding drum is powered by a spring motor. Revolving collector rings provide continuous electrical contact through wide graphite bronze brushes with phosphor bronze tension fingers. Two-Way Payout design from either side of reel requires cord only one-half the length of the hoist or equipment travel. Accessories include holding dogs for equipment positioning, swivel base, and two-position roller outlets for payout angles in excess of 30 degrees. Made by **Gleason Reel Corp.**, 736 N. Plankinton Ave., Milwaukee, Wis.

▲ For more details circle NED-387 B7 on enclosed inquiry slip ▲

Now—cut metal 15 times faster than hand hack sawing!

Slice through 1½" cold-rolled steel in 41 seconds—through 3½" lead-sheathed copper cable in 90 seconds! This new *Portable* Band Saw is *fast—two and a half times faster* than bulky power hack saws!

It's light, compact—handles easily, goes anywhere there's a job to be done. *Continuous cutting action* delivers smooth, controlled sawing in any position, even in cramped quarters—on ferrous and non-ferrous metals, "problem" materials.

Saves its cost over and over—send now for complete specifications and performance data.

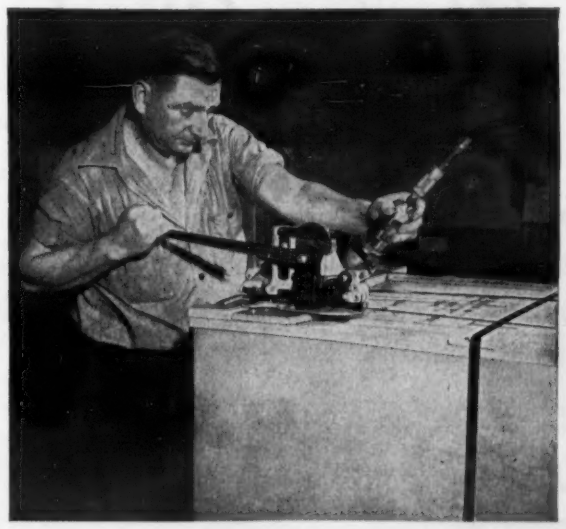
MODEL 524 PORTA-BAND — ONLY $215
WRITE TODAY FOR FULL INFORMATION

PORTER-CABLE Machine Company
7122 N. Salina Street
Syracuse 8, New York

Porter-Cable
Quality Electric Tools

▲ For more details circle NED-388 B7 on enclosed inquiry slip ▲

Another Signode First!



The First Air-Powered One-Piece Strapping Machine

Signode's new one-piece seal-feed strapping machine—operated by air power—offers you a better, faster and less fatiguing way to boost output of strapped containers and pallet loads.

One squeeze does it!

Air power does the hard work and does it *fast*. A squeeze on the air control lever tightens the strapping quickly to a pre-set tension—never too loose, never too tight. The sealing and cut-off operations are fast, too—a quick forward and back movement of the hand. The cut-off is close to the seal, eliminating waste of strap. No second tool to find and use. Operator fatigue is held to the minimum. Results: more units strapped per day at less cost.

The machine itself is light in weight, handles ⅝" and ¾" Signode strapping—can be set for tensions up to 1600 pounds.

For a demonstration, write:

SIGNODE STEEL STRAPPING COMPANY
2643 N. Western Ave., Chicago 47, Ill.

THIS SEAL MEANS SIGNODE SECURITY IN SHIPPING

▲ For more details circle NED-389 B7 on enclosed inquiry slip ▲

Series 8150 Adjustable Posture Chair in use above

TOLEDO production seating

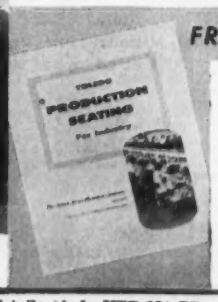
- Increases Production-Efficiency
- Improves Employee Morale
- Reduces Errors Caused by Fatigue

PRODUCTION SEATING is seating adapted to the "use requirements" of the individual at a particular operation.

The Toledo Metal Furniture Company has created the *only complete line* of comfortable, safe, rugged PRODUCTION SEATING. A wide range of features* from which to select the correct chair for your particular operation has been developed from Toledo's 60 years' experience.

*FEATURES . . . HEIGHTS (14" to 35"): Quick-adjustable—Adjustable—Fixed • FEET: 5 different kinds • SEATS: Swivel—Non-Swivel—Steel—Wood—Cushioned • BACKREST: Straight—Springback—Adjustable.

FREE! This Coupon Brings Valuable Data



THE TOLEDO METAL FURNITURE COMPANY
1090 South Hastings Street
Toledo 7, Ohio

Send brochure on TOLEDO Production Seating to:

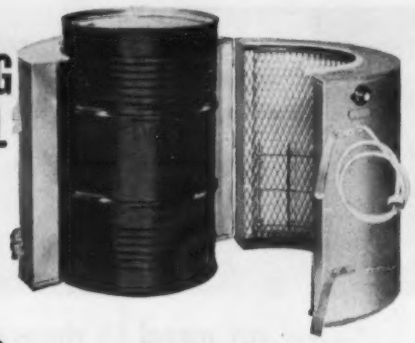
NAME.....

TITLE.....

Attach this coupon to company letterhead.

▲ For more details circle NED-384 B7 on enclosed inquiry slip ▲

WARMS ANYTHING IN METAL DRUMS UP TO 450°F



Palmer Automatic DRUM WARMER

A PORTABLE ELECTRIC OVEN in two models for 55 or for 30 gallon steel drums.

Saves Time—Saves Money. Makes removal from drum by dipping, pouring or pumping, easy and convenient, for any viscous material that handles better when warm.

Operates automatically and economically. Two hinged halves, well insulated, fit around drum at point of use—eliminates handling hot drums. Supplied for 115, 208, 230 or 460 volts, single, or three phase. Catalogue, prices and specifications on request. Write today!

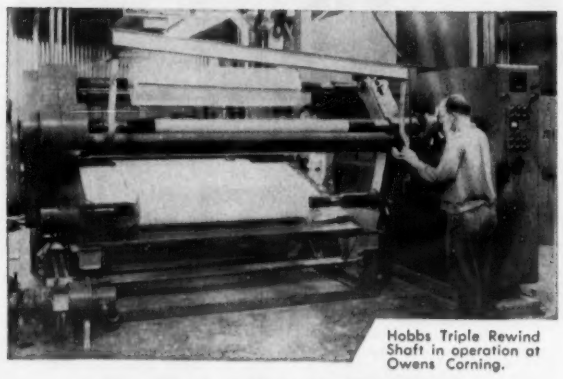
HAROLD L. Palmer COMPANY

2980 West Davison Ave., Detroit 38, Michigan, Phone TUlsa 3-1100

For more details circle NED-393 B7 on enclosed inquiry slip

HOBBS Winding Stands

CUSTOM OR STANDARD

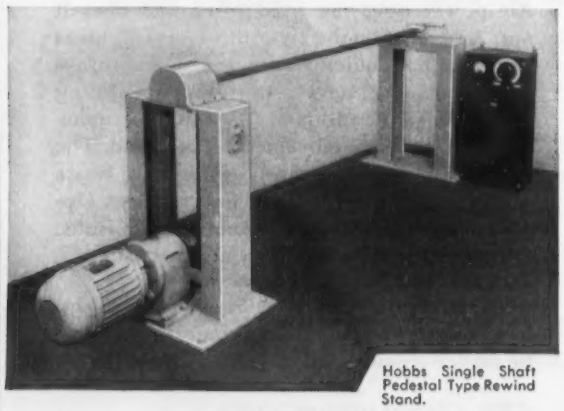


Hobbs Triple Rewind Shaft in operation at Owens Corning.

MAXIMUM WINDING EFFICIENCY For Each Individual Installation

Select your winding stand from standard equipment, including single winding stands, two shaft winding stands and turret winders — or when the problem is highly vertical, get the complete design, engineering and production facilities of the most successful supplier of winding equipment in the U. S. A.

Hobbs Has a Winding Stand for Every Purpose — Standard or Special



Hobbs Single Shaft Pedestal Type Rewind Stand.

EST. 1885

Ask for Special Winding Stand Literature

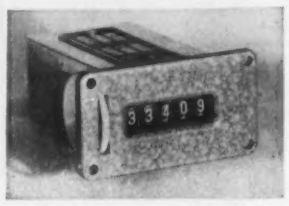
HOBBS MANUFACTURING CO.

41B Salisbury St., Worcester 5, Mass.

Branch Offices and Representatives in Irvington, N. J., Chicago, Cleveland, Greenville, S. C. and Toronto, Can.

For more details circle NED-394 B7 on enclosed inquiry slip

ELECTROMAGNETIC COUNTER
top counting rate is 40 per second

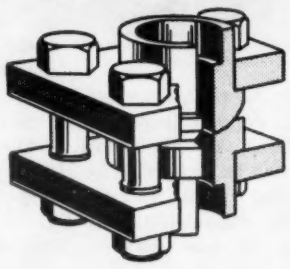


Shafts, wheels and other parts of the panel mounting model F 106 HD electrical impulse counter are machined, hardened steel, with driving parts hard-chrome plated. Heavy duty electromagnetic unit has a maximum counting rate of 40 per second with electronic drives or electromechanical actuators and resistors in series. Unit is 2½ x 1¾ x 1 3/16 in., has 3/16-in. high digits and is designed for direct current operation only with continuous duty coils from 6 to 220 v. Also available is model with one electronic decade for counting rates up to 400 per second. Made by **Presin Co.**, Dept. NE, 12128 W. Pico Blvd., Los Angeles 64, Calif.

For more details circle NED-395 B7 on enclosed inquiry slip

FLANGE UNION
withstands high pressures

Flange union with socket weld connections is designed to withstand operating pressures up to 3000 psi for schedule 80 pipe. Special models of same type are suited for pressures up to 10,000 psi. Tru-ball seat assures leakproof sealing when considerable pipe misalignment exists. Revolvable flanges facilitate assembly as bolts and bolt holes can be moved into desired position. Union is available for ⅛ to 6-in. pipe sizes. Made by **Almar Hydraulic Valve Co.**, 10021 Meech Ave., Cleveland 5, O.



For more details circle NED-396 B7 on enclosed inquiry slip

DC-AC CONVERTER
rotary unit has 750-w rating

Pole shoes and field ring of the 750-w direct-to-alternating-current rotary converter are cast in a single unit to eliminate electrical loss and simplify construction. The 58-lb unit measures 13⅞ x 6¾ x 7¼ in. Its armatures are protected by an oil, water and alkali resistant insulator. Dripproof units are available for input voltages of 24, 28, 32, 48, 64, 72, 115 and 230 v dc and deliver 115-v 60-cycle ac from a plug-in receptacle. To overcome heavy starting loads, delivery is almost 1000 w at 110 v and 1200 w at 120 v. Made by **Carter Motor Co.**, 2700 W. George St., Chicago 18, Ill.

For more details circle NED-397 B7 on enclosed inquiry slip

Speed Copying! Cut Costs!

WITH P&H

WHITEPRINT COPYMATION

Cut Blueprinting Costs 50% or More

Make exact-copy whiteprints as fast as you need them—save time, work and money. With the modern P&H SPEEDMASTER, anyone can economically print and develop exact, same-size black-line and colored-line whiteprints of charts, reports, letters, drawings, or any translucent original whether written, typed, printed or photographed. SPEEDMASTER handles cut sheets or roll stock up to 44" wide in any length. Electronic drive provides instant speed changes with full stop and reverse control. Ruggedly built of jig-drilled aluminum castings.

Continuous high-volume production whiteprinters in sizes and speeds to fit every need, from $1195 up. Also Spee-Dee whiteprinters from $79.50 up.

Send for informative Bulletin 56S1

P&H SALES CORP

REPRESENTING PECK & HARVEY MFG. CORP.

5638 N. WESTERN AVE., CHICAGO 45

Progressing with the Reproduction Industry Since 1937

MFRS. OF WHITEPRINT, BLUEPRINT & PHOTOCOPY EQUIPMENT

For more details circle NED-398 B7 on enclosed inquiry slip

NEW automatic all-weather roof ventilator

All desired features of more expensive units now in new economy-priced Aerovent Model 53 Power Roof Ventilators! Discharge dust, fumes, heat, moisture! Dampers open and close automatically. Rugged construction and finest workmanship assure dependable all-weather operation! Sizes 12" to 48", with capacities to 41,000 C.F.M. Available for flat, sloped or peaked roofs.

Other power and gravity units for air-supply or exhaust. write for free bulletin 600

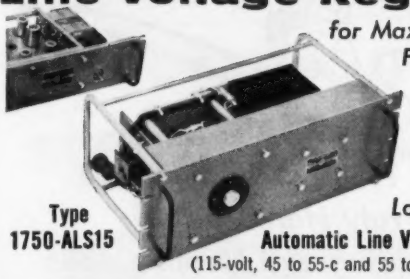
Rated in accordance with Standard Test Code and U.S.D.C. Comm. Std. CS178-51.

Aerovent FAN CO. INC.

Ash and Blake Sts. Piqua, Ohio

For more details circle NED-399 B7 on enclosed inquiry slip

Now GR Militarized! Automatic Line Voltage Regulator for Maximum Flexibility, Simple Maintenance, Reliable Operation, Long Life



Type 1750-ALS15 Automatic Line Voltage Regulator (115-volt, 45 to 55-c and 55 to 65-c line): $625.

☆ Output Voltage constant within ±0.25%; adjustable over ±10% of 115-volt line

☆ Fast, 10-volts-per-second response ☆ 6 KVA Capacity

☆ No Waveform Distortion

☆ Regulator Unit and Control Circuits in separate Assemblies; latter removable for servicing without interrupting interim manual operation

☆ Meets or Exceeds General Requirements of MIL-E-4158A for military use — components hermetically sealed and etched circuits treated with fungus- and moisture-resistant varnish — load rating unaffected by ambient temperatures to 55°C. — operates in relative humidity to 100% — withstands standard 1200-ft.-lb. shock tests, and vibration to 55 c per sec.

Write for detailed information including quantity prices, data on 230-volt models, and units to control 400-c power.

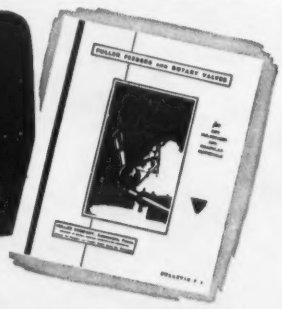
GENERAL RADIO Company

275 Massachusetts Avenue, Cambridge 39, Massachusetts, U.S.A.

Broad Avenue at Linden, Ridgefield, N. J. NEW YORK AREA 920 S. Michigan Ave. CHICAGO 5
1150 York Road, Abington, Pa. PHILADELPHIA
8055 13th St., Silver Spring, Md. WASHINGTON, D. C. 1000 N. Seward St. LOS ANGELES 38

For more details circle NED-400 B7 on enclosed inquiry slip

FULLER Feeders and Rotary Valves



Fuller Roll and Vane Type Feeders handle more than 64 different dry, pulverized and granular materials and are built of cast iron, combinations of iron and steel, and, when required, special alloys.

Fuller Feeders have been in thoroughly successful operation in a wide variety of industries for more than 25 years, handling such diversified materials as aluminum powder, corn flakes, rubber pellets and zinc sulphate.

Fuller Bulletin F-5 presents the comprehensive story on Fuller Feeders. It includes descriptive text, diagrams, dimensional tables and photographs. There is a copy for you that will be addressed to you merely for the asking. Send for it.

Fuller ... pioneers in harnessing AIR

F-17 3274

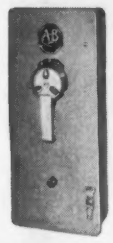
FULLER COMPANY

154 Bridge St., Catasauqua, Pa.

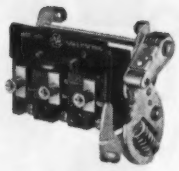
SUBSIDIARY OF GENERAL AMERICAN TRANSPORTATION CORPORATION

Chicago · San Francisco · Los Angeles · Seattle · Kansas City · Birmingham

For more details circle NED-401 B7 on enclosed inquiry slip



The Sign of QUALITY MOTOR CONTROL



Contacts Open

NEW Bulletin 712 Combination Starters with "Safe" visible contact disconnect switch

Allen-Bradley's new Bulletin 712 Combination Starters remove all doubt whether ALL lines are clear when the disconnect switch is in OFF position, because the contacts are out in plain view, as illustrated above. Unauthorized persons cannot open the door without moving handle to OFF, and handle can be locked OFF or ON with up to three padlocks. Specify A-B combination starters for maximum safety. Available from 1 to 100 hp, 220 v; 200 hp, 440-550 v.

Allen-Bradley Co., 1334 S. Second St., Milwaukee 4, Wis.
In Canada—Allen-Bradley Canada Ltd., Galt, Ont.

ALLEN-BRADLEY
SOLENOID MOTOR CONTROL
QUALITY

For more details circle NED-402 B7 on enclosed inquiry slip

BUILD YOUR OWN

Automatic Drilling or Tapping Machine

With Govro-Nelson Automatic Drilling and Tapping Units, together with the bases and electrical controls which we can supply, you can build yourself an automatic drilling or tapping machine at substantially lower cost than a special machine. Any number of units may be employed.

The Drilling Units are made in several sizes with spindle speeds from 1100 to 3450 RPM. Drill Units have full Hydraulic Control with external adjustment for the rapid approach, the rate of feed and the length of stroke. Suitable for drills up to 3/8", depending on material.

The Tapping Units are available in two sizes with 550 and 1725 RPM spindle speed. Features include no clutch and no lead screw and automatic adjustment for various leads. Suitable for tapping 0-80 to 3/8-16, depending on material.

Write for Literature

GOVRO-NELSON CO.
1933 Antoinette
DETROIT 8, MICH.

Automatic **DRILLING UNIT**

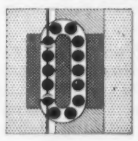
For more details circle NED-403 B7 on enclosed inquiry slip

World's Finest Ball-Bearing

SPLINES!

AVERAGE 40 TIMES LOWER FRICTION COEFFICIENT THAN ORDINARY SLIDING SPLINES!

Radically increase efficiency of transmitting or restraining high torque loads!



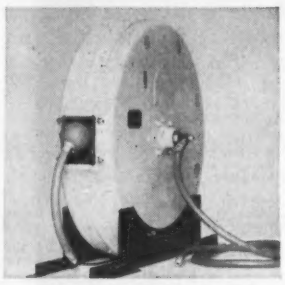
Saginaw b/b Splines can be fitted with integral gears, clutch dogs, bearing and sprocket seats or other attachments for use with electrical, hydraulic or pneumatic units. Units have been built from 3/8 TO 6 IN. DIAMETER, 3 IN. TO 10 FT. LONG. Saginaw Steering Gear Division of General Motors, Saginaw, Michigan. (Dept. 3P)

WRITE TODAY FOR NEW 1957 DATA BOOK

Saginaw b/b Splines

For more details circle NED-404 B7 on enclosed inquiry slip

HOSE REEL
holds 50 ft of 1/4-in ID hose



Swivel with chevron type seals and sintered bronze graphite bearings in the stainless steel spindle is feature of model A-1 Weldreel single hose reel. It has a steel shaft rotating on ball bearings, clock type spring, provision for mounting in several positions and easily released locking pawl. Reel has baked enamel finish, 5 ft of inlet hose and is available with 50 ft of 1/4-in. ID hose, 50 ft of 3/8-in. ID hose or 30 ft of 1/2-in. ID hose. Made by **United Specialties, Inc.**, Dept. Q, Box 698, El Dorado, Ark.

For more details circle NED-405 B7 on enclosed inquiry slip

SERVO ACTUATOR
designed for continuous operation

Dynamic motor braking is incorporated in the D-9 permanent magnet type rotary servo actuator for airborne applications. It is designed for continuous operation at an output rating of 70 lb-in. at 8.5 rpm. Weighing 1.9 lb, it has a 3 5/16-in. diameter and an overall length of 4 7/8 in., including the AN connector. Unit features limit and centering switches and a potentiometer for feedback of position information. Made by **White-Rodgers Co.**, Armament Dept., Station 2841, 4407 Cook Ave., St. Louis 13, Mo.

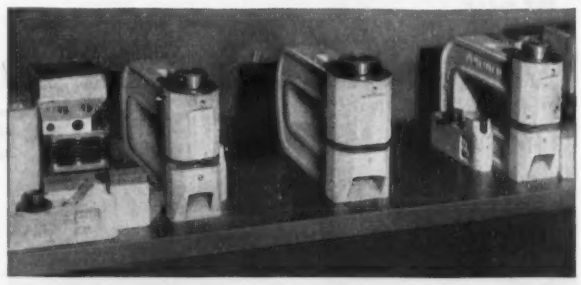
For more details circle NED-406 B7 on enclosed inquiry slip

INSULATION TESTER
audibly indicates, totalizes faults

Insulation faults or pinholes in insulated wire can be counted at speeds up to 600 fpm by the P-1 insulation tester. Its continuously adjustable voltage control and panel meter are adjustable for single or multiple coated wire in a 0-250 v dc range. A high sensitivity detector operates a magnetic counter and buzzer for audible fault indication. Test current of 10 microamps enables use of high resistance electrode circuit and will not harm or mark wire. Unit is available in other voltage ranges for use with other electrodes. Made by **Peschel Electronics Inc.**, 17 Garden St., New Rochelle, N. Y.

For more details circle NED-407 B7 on enclosed inquiry slip

Latest TOOLSET SYSTEM introduces "PEG BOARD" simplicity to PUNCHING & NOTCHING SETUPS



CLEARS TRACK for REVOLUTIONARY TOOLING, PRODUCTION and INVENTORY SAVINGS on LONG and SHORT RUNS

In addition to being self-contained, self-aligning and self-stripping, TOOLSET Punching and Notching Units are self-locating when used and re-used with TOOLSET punch pattern plates,—quick as a "Peg Board".

Men who work with ferrous, non-ferrous and non-metallic sheet materials are discovering new ways to save on tooling, setup, production and inventory costs, thanks to THE TOOLSET SYSTEM.

In addition to production run economies, —short, repeat and custom runs can be set up with "Peg Board" speed.

Your local TOOLSET representative is factory trained and qualified to help you work out the most economical setup.

Another TOOLSET EXCLUSIVE!
3 POINT PUNCH GUIDING

TOOLSET Piercing Units offer latest design improvements including 3 Point Guiding for accurate punching, burr-free holes, longer punch and die life, and many other advantages worth knowing about.

•

ESSENTIAL for SUPER ALLOYS

TOOLSET, Inc.
1413 Military Road
BUFFALO 17, N. Y.

For more details circle NED-408 B7 on enclosed inquiry slip

Available in styles to solve all bulk material-handling problems.

For heavy handling under adverse conditions

JEFFREY RELIANCE BELT IDLERS

Jeffrey idlers offer every feature essential to belt protection, dependability and long service. Equipped with roller bearings, these Reliance idlers assure maximum efficiency and economy of conveyor belt operation. All parts of the Jeffrey Reliance idler are interchangeable. **Idlers and parts are always available, ready for shipment from factory or distributor stock.**

JEFFREY

THE JEFFREY MANUFACTURING COMPANY • COLUMBUS 16, OHIO

For more details circle NED-409 B7 on enclosed inquiry slip

CUT CLEAN-UP TIME IN HALF!

a thin film of

RELEASE-COTE

on any surface sheds residue glues, adhesives, plastic coatings, inks, paints . . . like magic!

Apply RELEASE-COTE (a scientific releasing agent) on a clean surface and dried residue materials *strip off* walls of tanks, pots, journals, spray booths, in seconds at clean-up time.

• Machines last longer because RELEASE-COTE repels coating materials, eliminating build-ups that tax motors and moving parts.

• Operators love RELEASE-COTE'S gentleness to their hands. A little rubbed on the hands prevents coating material from sticking to the skin and nails.

Available in qt., gal., 5 gal. and tube.
Write for literature

ESTABLISHED IN 1893 POTDEVIN

DISTRIBUTED BY

POTDEVIN MACHINE CO.
273 North Street, Teterboro, N. J.
Designers and manufacturers of equipment for gluing and Labeling, Coating, Laminating, Bag Making and Printing.

For more details circle NED-410 B7 on enclosed inquiry slip

SINTZ Threaded Rod Steel and Non Ferrous

Has Thousands of Industrial Uses

SINTZ *crt** high quality-low cost threaded rod has a 1000 and 1 uses! . . . With SINTZ rods you can make quick repairs economically and reduce down-time to a minimum. Try SINTZ once and you'll be convinced.

*Cold Rolled Threaded—Bends Cold

ORDER FROM YOUR MILL SUPPLY HOUSE—INDUSTRIAL JOBBER OR DIRECT FROM . . .

CLAUDE SINTZ INC.
1928 STANLEY AVENUE
DETROIT 8, MICHIGAN

SINTZ *CRT threaded steel and non ferrous rod COLD ROLLED THREADED—BENDS COLD *QUALITY *SERVICE *PRICE Established 1912

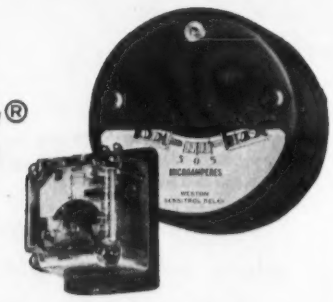
STUDS • PIPE PLUGS
FORMED RODS

For more details circle NED-411 B7 on enclosed inquiry slip

Forget the Amplifier

Boost feeble input signals with compact ultra-sensitive

WESTON Sensitrol® relays



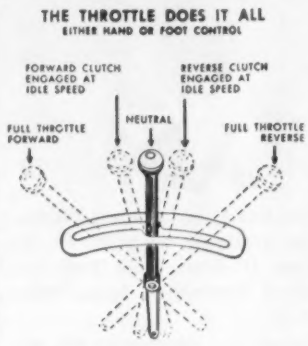
If your design utilizes an amplifier to boost a minute signal for relay operation – or, if you have 'shelved' some new product idea because the cost, space requirement and other drawbacks of amplifiers made the design impractical – *Sensitrol relays are for you.* For these tiny, ultra-sensitive relays, which operate direct on input signals as slight as *1 millivolt* or *½ microampere,* and handle substantial wattage at *110 volts,* entirely replace amplifiers, vacuum tubes and auxiliary power supplies. They are available with single or double contacts, fixed or adjustable, manual or solenoid reset. For engineering assistance in adapting Sensitrol relays to present products, or new problems you have in mind, call your nearest Weston representative, or write for the Sensitrol bulletin B-25-B . . . *Weston Electrical Instrument Corporation, 614 Frelinghuysen Avenue, Newark 5, New Jersey.*

WESTON *Instruments*

For more details circle NED-412 B7 on enclosed inquiry slip

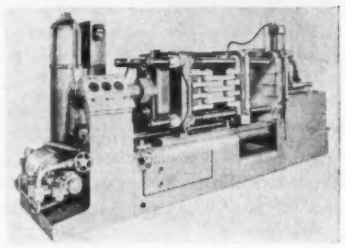
TORQUE CONVERTER
lever changes direction and speed

Single throttle lever of the Revers-O-Matic torque converter transmission instantly changes both direction and speed of travel. Movement from the neutral or center position engages the hydraulically operated clutch and further movement, either forward or reverse, controls the speed (see diagram). Either hand or foot control is available. Tests show the converter multiplies engine torque in excess of 200 per cent. Drive is adaptable to operations involving change in direction of movement, either forward and reverse, or lift and lower, on equipment with engines up to 250 cu in. displacement. Made by **Funk Aircraft Co.,** Box 577-CH, Coffeyville, Kans.



For more details circle NED-413 B7 on enclosed inquiry slip

DIE CASTING MACHINE
improved high production unit features 450-ton capacity



Among advantages of this 450-ton capacity model 120 Unicaster die casting machine is its compact, self-contained hydraulic system. Elimination of pilot lines and the coupling of all hydraulic pipes with welded flange fittings reduces oil leak or hydraulic shock possibilities. Tank clean-out is simplified, with drainage being unnecessary.

Machine also features an extra heavy toggle system and large accumulator tank. Tie bars can be pulled without dismantling any part of machine. Special adjustment eliminates need for brute strength and large wrenches to make cylinder adjustment. Only two nuts clamp nozzle to die. Controls permit automatic cycle or manual operation of die closing, core pull or shot, if necessary. Made by **Uniloy Corp.,** Unit Products Div., 135 E. Bennett St., Saline, Mich.

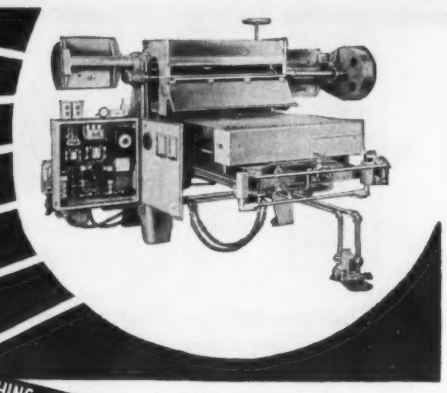
For more details circle NED-414 B7 on enclosed inquiry slip

Dial Snap Gages

Standard Gage Co.—Information provided in 8-page bulletin F451 on dial snap gages affords the basis for selecting the gage best suited for a specific job or general purpose use. Gages have flat anvils which are kept parallel by the Paralloc mechanism, a device which applies locking force parallel to anvil shanks.

For more details circle NED-415 B7 on enclosed inquiry slip

SOLVED FINISHING PROBLEMS



Enthusiastically accepted for such application as:
AUTOMOBILE TRIM
Photo Engravure Stock
NAME PLATES
Industrial Jewelry, metal or plastic panels; wood, brass, copper, etc., etc.

Model No. 203A CLAIR Surface Finishing Machine is YOUR answer!

Single Spindle Vacuum or Platform Table Design. It will accommodate work up to 48" long and 40" wide, or as many small pieces per load as can be nested on the table.

CLAIR *Let us know YOUR finishing problems for a detailed answer*

MANUFACTURING CO., Inc., OLEAN, N.Y.

Offering the Most VERSATILE Line of Surface Finishing Machines

For more details circle NED-417 B7 on enclosed inquiry slip

Try NEW Bond® 50-A SERIES
PRESSED STEEL SWIVEL CASTERS
. . . they're stronger, lighter and lower cost!

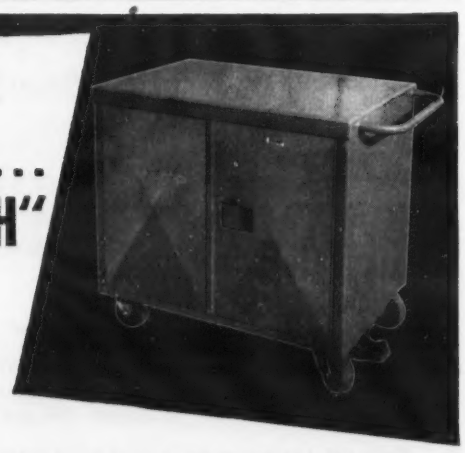
A new ball race, deeply embossed outer apron and steel sleeve put *extra* strength at the *right* places on Bond's new 50-A Series Pressed Steel Swivel Casters. This means you can expect and get long, dependable service from your 50-A's. They'll roll with "air-light" ease. And they'll cost less to buy, less to use.

Try new Bond 50-A Series Pressed Steel Swivel Casters. They are available in 2, 2½, 3, 4, 5 and 6-inch diameter semi-steel or solid rubber tread wheels. Individual caster capacities range from 75 through 500 pounds. Buy your new Bond 50-A Series Pressed Steel Swivel Casters from your local Bond distributor or write:

Bond FOUNDRY & MACHINE COMPANY
MANHEIM, PENNSYLVANIA

For more details circle NED-418 B7 on enclosed inquiry slip

Now . . . a workbench where and when you want it! . . .
THE NEW MOBILE "ROLL-A-BENCH"



7858-OK

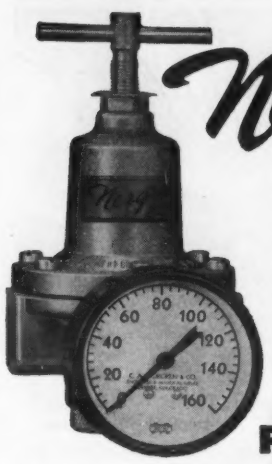
A maintenance department on wheels! Here's a mobile workbench that can be rolled to work location by one man . . . with compartments for tools and spare parts . . . with doors that can be locked.

The ROLL-A-BENCH . . . all-welded 1/8-inch and 3/16-inch steel plate constructed . . . is capable of supporting up to 2000 pounds safely. Heavy-duty roller bearing wheels (hard rubber or phenolic resin) are furnished. A foot-operated locking mechanism securely positions the work-bench assuring stable working surface. Vise optional.

Write today for literature and prices or . . . CALL MOntrose 2-4242.

THE OVERBEKE-KAIN COMPANY
20979 Aurora Road • Bedford, Ohio

For more details circle NED-416 B7 on enclosed inquiry slip



Norgren announces NEW advanced line of AIR PRESSURE REGULATORS

Write for NEW CATALOG | More Accurate Control of Regulated Pressure | Greater Air Capacity (cfm)

C. A. NORGREN CO.

3405 So. Elati St. • Englewood, Colorado

For more details circle NED-419 B7 on enclosed inquiry slip

CROWN® MODEL LT-1000 E-Z LIFT

HANDLES LOADS UP TO 1,000 POUNDS QUICKLY, EASILY, ECONOMICALLY, SAFELY

CROWN® E-Z LIFT MODELS PRICED AS LOW AS $195.00

Model LT-1000—$240.00
F.O.B. New Bremen, Ohio

The Crown Model LT-1000 E-Z Lift offers these advantages for factories, printing plants, machine shops, garages, warehouses, foundries, pattern shops, stores—wherever there are lifting jobs:

Exceptional maneuverability.
Easily operated by one man.
Ends danger of lifting injuries.
Has safety plate platform, overload release, safety guards and brake.
Rated capacity 1,000 pounds.*
Maximum lift 54"—lowers to 5¼" from floor—straddle capacity 16¼".
Dependable, manually operated hydraulic lifting mechanism.
Strong tubular welded steel construction.

OTHER CROWN E-Z LIFT TRUCK MODELS

Model FL-1000—1,000 pound capacity fork lift
Model LT-500—500 pound capacity table lift

**Capacities rated on 20" load center.*
Special lifts engineered to your specifications.

WRITE TODAY FOR DETAILS!

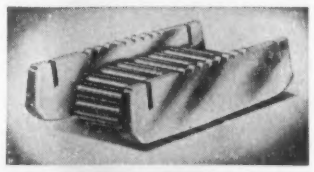
HYDRAULICS DIVISION

CROWN CONTROLS Co., Inc. NEW BREMEN, OHIO

CC18

For more details circle NED-420 B7 on enclosed inquiry slip

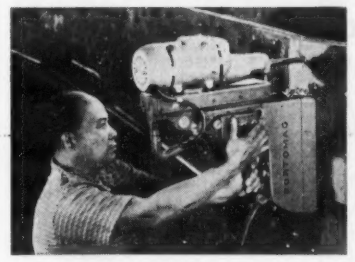
MACHINERY ROLLER easily moves objects up to 150 tons



Series of moving rollers locked in an endless track and extending above and below a heavy steel frame comprise the Express Roller, a caterpillar-action unit for moving heavy machinery. The frame contains serrated edges which grip the work being moved. Five sizes with 2 to 150-ton capacities roll without grab or screech from straight compression forces. Accessories include a revolving base plate mounted on ball bearings which locks on the roller chassis and a handle for locking onto the plate. Made by **Industrial East Co.**, Express Roller Div., Box 561, Clifton 1, N. J.

For more details circle NED-421 B7 on enclosed inquiry slip

MAGNETIC DRILL PRESS features automatic power feed



While the electromagnetic base of the Portomag drill press holds the machine in position, its automatic power feed enables the operator to run the drill point down to the center punch mark. The power feed can be engaged or disengaged at any time during the drilling operation, and the depth of cut per revolution can be set according to the size of drill bit being used. Drill press can be taken to the job for drilling up to 1¼-in. holes and tapping 1-in. holes. Made by **Portomag, Inc.**, Dept. N. 1511 E. Nine Mile Rd., Ferndale 20, Mich.

For more details circle NED-422 B7 on enclosed inquiry slip

AUTOMATIC NUMBERER prints numbers to 9999

Adjustments for numbering consecutively or repeatedly in duplicate, triplicate or quadruplicate are built into the Junior automatic numbering machine. Easy-to-read numbers range from 0001 to 9999 and print in a space of ⅛ x 17/32 in. Numbers can be aligned in the exact position required. Lock for resetting and removable ink pad for reinking are features of the 4½-in. high, 8½-oz machine. Made by **Bankers & Merchants, Inc.**, Faymus Div., 3227 N. Sheffield Ave., Chicago 13, Ill.

For more details circle NED-423 B7 on enclosed inquiry slip

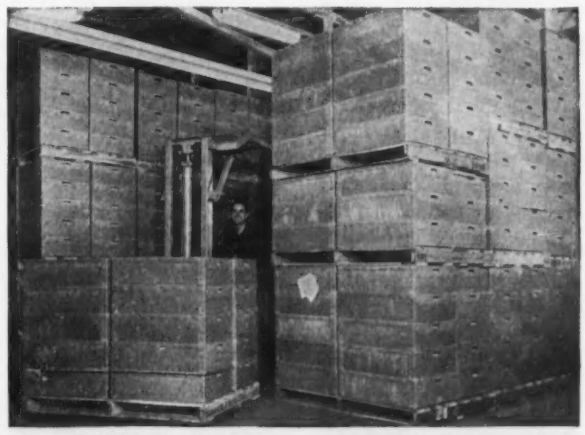
UP PROFITS? HIGH WANT TO LOWER COSTS?

CONVOY'S CHEMBOARD* SELF-STACKING TOTE BOXES MAY BE YOUR ANSWER

Convoy Boxes are LOW COST, STRONG and LIGHT WEIGHT . . . are made in a wide range of stock sizes and shapes. They weigh and cost less than 40% of steel.

*Chem-Board is Convoy's chemically impregnated corrugated board . . . flint-hard, rock-strong.

Here's an example of Convoy Self-Stacking Boxes speeding production, conserving space, saving money.



GET IN TOUCH WITH CONVOY, INC.

CANTON 6, OHIO
P. O. Station B, Box 216-N

STANDARD AND CUSTOM-MADE NESTING, STACKING, and VERTICAL-SIDED CHEM-BOARD TOTE BOXES

For more details circle NED-424 B7 on enclosed inquiry slip

THIS IS ONE OF 18 APEX INSERT BITS FOR NO. 2 PHILLIPS RECESS

The other seventeen Apex insert bits look exactly like this one, but each has its own combination of hardness and toughness . . . each is intended for a specific screwdriving job. That's why Apex bits last longer, drive more screws, help cut fastening costs . . . they're tailored to your exact requirements. Apex—the authority on fastening—offers a complete line of screwdriving tools for manual or power operation.

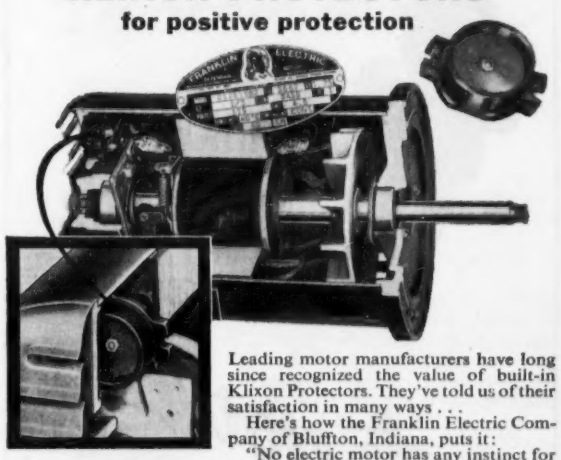
Write, on your company letterhead please, for Catalog 21.

Ask APEX for the answer to your fastening problem!

THE APEX MACHINE & TOOL COMPANY
1046 S. Patterson Blvd. • Dayton 2, Ohio

For more details circle NED-425 B7 on enclosed inquiry slip

Franklin Motors Count on Built-in KLIXON PROTECTORS for positive protection



Leading motor manufacturers have long since recognized the value of built-in Klixon Protectors. They've told us of their satisfaction in many ways . . .

Here's how the Franklin Electric Company of Bluffton, Indiana, puts it:

"No electric motor has any instinct for self-preservation . . . unprotected it will operate under overload until it destroys itself. To prevent this happening in Franklin Motors, we specify and use Klixon Protectors."

They go on to add, "Dependable motor operation requires the positive protection afforded by a Klixon Protector that cuts off power when conditions arise that would otherwise result in certain damage and service shut down.

"The motor shown here is only one of many engineered by Franklin for dependable powering of water systems. And, we feel that Klixon Protectors are a key factor in this dependability."

You, too, can get this dependability in the motors that keep your equipment operating . . . just specify and use Klixon Protected Motors . . . the additional cost is low, pays for itself over and over.

METALS & CONTROLS CORPORATION
SPENCER THERMOSTAT DIVISION
3302 FOREST STREET, ATTLEBORO, MASS.

For more details circle NED-426 B7 on enclosed inquiry slip

THE HOTTEST THING IN CARTRIDGE HEATING-UNIT HISTORY

THE NEW WATLOW FIREROD CARTRIDGE

5 TIMES MORE HEAT than ANY standard cartridge heating unit!

A New high in Watt Densities and temperatures . . . plus l-o-n-g-e-r cartridge life

For convincing test-proof and other information, write for new FIREROD Bulletin

WATLOW ELECTRIC MFG. CO.
1374 FERGUSON AVE.
SAINT LOUIS 14, MO.

For more details circle NED-427 B7 on enclosed inquiry slip

"ADJUSTABLE STROKE" MIDGET Air-Clamp* CYLINDER

*TRADEMARK

Now—put pressure where it's wanted instantly and cheaply, with Mead's powerful new midget air cylinders (1" bore, single-acting, spring return—horizontal and vertical). Stroke is adjustable. Cut costs—use 'em singly or in groups to move, hold, press or eject small work pieces; to close and open large jigs, forms, fixtures. They'll replace human fingers and mechanical clamps in countless routine jobs.

Catalog Free!

Write for new fact-and-picture-packed Air Power Catalog—or ask your nearest Mead Man!

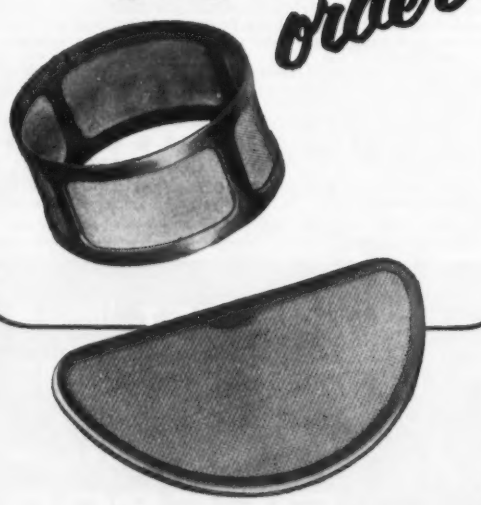
MEAD SPECIALTIES COMPANY
4114 N. Knox Ave., DEPT. NA27
CHICAGO 41, ILLINOIS

PATHFINDER IN AIR POWER AUTOMATION

For more details circle NED-428 B7 on enclosed inquiry slip

FABRICATED WIRE CLOTH PARTS

to your order



Our special business is specials . . . special fabricated wire cloth parts made to your specifications. We save you time, we save you overhead, we save you production worries. And, you get a better part at a lower cost.

We weave our own cloth . . . your guarantee of quality components. We are fully equipped to do all necessary cutting, shaping, fitting, welding, soldering, punching, binding, etc.

For more information on this "One-Stop" Wire Cloth Parts Service, send for our latest Parts Catalog.

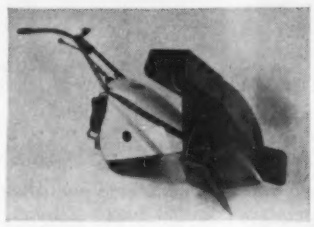
NEWARK for ACCURACY

Newark Wire Cloth COMPANY

351 VERONA AVENUE • NEWARK 4, NEW JERSEY

For more details circle NED-429 B7 on enclosed inquiry slip

SNOW THROWING MACHINE
cuts 16-in. path in 18-in. drift



Equivalent of up to 300 shovelfuls per minute of snow can be handled by the Jari Junior power unit with removable Snothrower attachment. The self-propelled machine will cut a 16-in. path through drifts up to 18 in. deep or more. By throwing snow in one direction, rather than blowing it or pushing it aside, unit cannot be stalled. Open construction prevents clogging. Unit has aluminum 1.75-hp engine, adjustable handlebars, and an adjustable clutch control rod that provides forward drive through powdery, wet or packed snow. Raker bar cuts up packed or deeply piled snow. Made by **Jari Products, Inc.**, Dept. NED, 2990 Pillsbury Ave. S., Minneapolis 8, Minn.

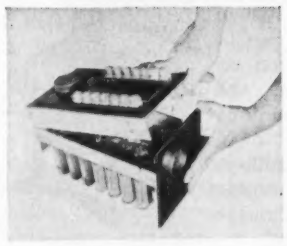
For more details circle NED-430 B7 on enclosed inquiry slip

TEMPERATURE CONTROL
reacts to 0.075° F change

Extreme sensitivity of a thermistor bridge circuit is combined with the dual indicating and controlling function of a contact meter-relay in the Simply-trol packaged temperature control. It reacts to a temperature change as small as 0.075° F, with its thermistor sensing element located up to 200 ft from the controller. Various types of probes and clamps are offered. Practical limits are −103 to 572° F with a minimum span of 15° F. Either automatic on-off or locking limit control action is available. Former maintains heat at a set level, while latter turns off heat and requires manual resetting when control point is reached. Operation is on 115 or 230 v ac with a control accuracy of ±½-per cent of meter span. Made by **Assembly Products, Inc.**, Wilson Mills & County Line Rds., Chesterland, O.

For more details circle NED-431 B7 on enclosed inquiry slip

PACKAGED CONTROLS
ready for connection to machine



These Directors are packaged electrical controls which are designed to direct machines to perform various sequences of simultaneous functions to form complete cycles of operation. They also continually check the performance and either stop the operation or correct the error if the performance is not correct. Units are built in multideck for ease of inspection and servicing. Systems are available for fully automatic control of many types of machines and processes. They are furnished as fully wired, plug-in packages with wiring harnesses and terminals for connection to the machine motors, controls and switches by any electrician. Made by **Sensory Inc.**, 504-192 Pleasantville Rd., New Vernon, N. J.

For more details circle NED-432 B7 on enclosed inquiry slip

ADJUSTABLE HEIGHT TRIPOD
supports 1½-ton capacity load

Individually - adjustable telescopic legs of the Magic - Pole hoist tripod allows it to be set up for heights from 8 to 14 ft on uneven ground, ramps, truck beds, and platforms. Legs are locked with spring-loaded bolts. Portable tripod weighs only 80 lb and has capacity of 1½ tons. Construction assures secure footing on concrete, asphalt, wood block or soil. Pads are offered to protect polished floors. Also available is special attachment to convert two legs of tripod into an A-frame. Made by **B. E. Wallace Products Co.**, Exton 19, Pa.

For more details circle NED-433 B7 on enclosed inquiry slip

Speed silver brazing

Lucas-Milhaupt

NO TANGLE NOTCH COIL RINGS

1. Quickly snapped off coil and placed on part.
2. No tangling or distortion
3. Minimum amount of precious alloy for positive bond.

RING DIAMETERS from ¼" to 12" − + .001.

WIRE SIZES .020 to .093.

FREE 16 page booklet gives you all the facts on better brazing

LUCAS MILHAUPT Engineering COMPANY

5051—A So. Lake Drive, Cudahy, Wis.

For more details circle NED-434 B7 on enclosed inquiry slip

OTC

REPLACE 42 SIZES WITH THESE TWO

NEW GIANT ALLOY adjustable wrenches

THINNER-LIGHTER-STRONGER

Until now 42 fixed size wrenches were needed to handle jobs done by these two *"Slim-Twin"* adjustable wrenches. Slim to permit easy access to tough jobs. Lightweight sturdy, high quality alloy steel for dependable service.

OA24-24" long, ⅞" thick with two jaws. Provides adjustments from 1⅜" to 2⅞" in ⅛" graduations. Extra jaw permits adjustments from 1 1/16" to 2 11/16" in 1/16" graduations. Weight, only 10 lbs.

OA36-36" long, 1⅛" thick. Adjusts from 2 11/16" to 4¾" in ⅛" graduations. Weight, only 22 lbs.

Save time and money with OTC "Slim-Twins"

WRITE FOR FREE BOOKLET

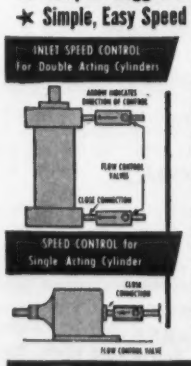
OWATONNA TOOL CO.

436 CEDAR ST., OWATONNA, MINNESOTA

For more details circle NED-435 B7 on enclosed inquiry slip

Pneu-Trol VALVES

★ Accurate, Constant Cylinder Speed Control
★ Compact Rugged Design
★ Simple, Easy Speed Selection ★ For Air, Oil or Water Applications



Pneu-Trol Speed Control Valves, are widely used in hundreds of control applications because they combine in a short, compact body, a tapered fine thread needle for extremely accurate air or oil flow control and a floating retro ball check, which permits full flow in the opposite direction. Retro ball floats in most sensitive position to its seat, requiring only a slight differential pressure to fully open or close it.

Needle design permits maximum flow capacity in the controlled direction. Metal to metal needle and ball seats insure long trouble-free service. Simple, practical "O" gland structure eliminates troublesome leaking. Valve bodies machined from hex brass or aluminum for 2000 psi working pressures; steel and stainless steel for 5000 psi. Made in 5 female pipe sizes—⅛" to ¾". ATTRACTIVE PRICES . . . IMMEDIATE DELIVERY.

Write for illustrated circular and prices.

Pneu-Trol DEVICES, INC.

1432 N. KEATING AVENUE • CHICAGO 51, ILL.

For more details circle NED-436 B7 on enclosed inquiry slip

RAWSON® COUPLING

"as simple as a handshake"

SAVINGS—on initial and replacement equipment costs through:—

Normal torque standard squirrel cage motors instead of special high torque motors

Smaller motors since same HP requirements are used for starting as for running

Elimination of expensive electrical starting equipment

Reduced electrical starting surges and peak demands

Standard applications to 1000 HP

Better motor efficiency, better power factor

RAWSON COUPLINGS

O. S. WALKER COMPANY, INC.

200 Rockdale St. • Worcester, Mass.

For more details circle NED-437 B7 on enclosed inquiry slip

Quick, Effective Economical IDENTIFICATION with PANNIER HAND-TYPE BAR and TUBE PRINTER

This new Hand-Type Bar and Tube Printer, will print flat, round and many-sided parts, from 5/16" up, without making a single adjustment. Inspection marks, dates, codes, trade names, etc., are printed clear and unsmudged and thousands of impressions are obtained from the even flowing ink supply.

It eliminates the necessity of moving heavy or cumbersome stock. The entire printer weighs less than 7½ pounds and can be carried to the parts to be marked with very little effort.

This printer will clearly mark all types of rigid or semi-rigid materials, such as steel, iron, aluminum, nickel, stainless, plastic, wood, rubber (hose), etc. This unit also is the answer for "MIL-STD-183," continuous identification marking of iron and steel products.

Write for complete information.

OFFICES: Chicago • Los Angeles • Cleveland • Philadelphia

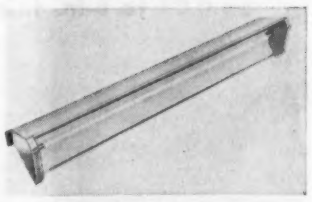
MARKING DEVICES — MASTER PANNIER MARKERS

THE PANNIER CORPORATION

301 Pannier Building Pittsburgh 12, Pa.

For more details circle NED-438 B7 on enclosed inquiry slip

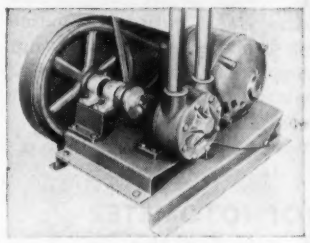
RADIANT HEATERS
heat capacities range to 10,000 w



Over 100 w per inch of heated length is provided by Infralite industrial radiant heaters. Intermediate infrared radiant energy produced is in the spectrum between 1.7 and 3.0 microns to minimize losses from conduction, convection and visible light. Heater is usable in oven, conveyor, portable and panel installations for various drying, cooking, curing, pasteurization, sterilization and treating operations. Various sizes with heating capacities up to 10,000 w require connection of only two wires. Made by **N. J. Thermex Co.**, Dept. NE, 535 Bergen St., Harrison, N. J.

For more details circle NED-440 B7 on enclosed inquiry slip

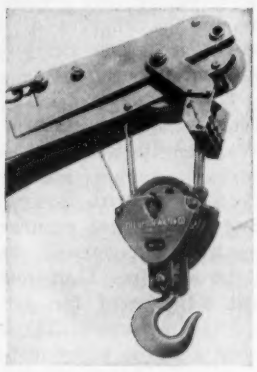
HEAVY OIL PUMPS
have deliveries up to 2030 gpm



Improved type SU pump units are designed for handling heavy fuel oils in industrial and commercial oil burner service or noncorrosive, viscous liquids with lubricating qualities. Having simplified design with lighter weight construction, units are provided for either two or four V-belt drives, for pressures up to 300 psi and in capacities up to 2030 gph. Features include ball-bearing pillow blocks, flexible couplings, a one point take-up for belt tension adjustment and multiple V-belt drive. Made by **Tuthill Pump Co.**, Dept. PR, 937 E. 95th St., Chicago 19, Ill.

For more details circle NED-441 B7 on enclosed inquiry slip

CRANE HOOK BLOCK
short design increases lift limits



Much shorter than conventional models, Max-Lift crane hook block assures maximum lifting limits. Six models have capacities from 5 to 30 tons. Bronze or roller thrust bearings minimize danger of twisting and damaging hoisting lines and also permit loads to be positioned easily by one man. It has Alemite lubrication fittings and is designed for easy attachment. Made by **Upson-Walton Co.**, Dept. DA, 12535 Elmwood Ave., Cleveland 11, O.

For more details circle NED-442 B7 on enclosed inquiry slip

Speed Experimental Work with WELLER multi-purpose SOLDERING KIT

You get instant response—*full soldering heat, 250 watts—in just 5 seconds* from Weller Soldering Gun, Model 8250A. Triggermatic control for quick-as-a-flash "on-off" operation—no need to unplug between jobs. No waiting or tedious assembly. Always ready for a wide range of research, testing, design and development work in laboratories, model shops and industrial plants.

KIT GIVES *EXTRA* VALUE—Kit (8250AK) contains streamlined Soldering Gun with balanced pistol grip, dual spotlights; ample supply of famous Kester Solder, general purpose type; sturdy metal carrying case; tip for cutting plastic materials; smoothing tip for heat-sealing, joining thermo-plastics, etc.; 2 valuable instruction booklets.

FULLY GUARANTEED FOR 1 YEAR—Order from your Electronic Parts Distributor or write for catalog bulletin.

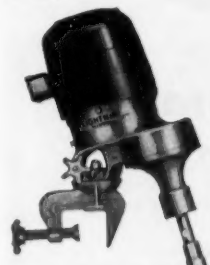
Weller ELECTRIC CORPORATION
601 Stone's Crossing Rd., Easton, Pa.

For more details circle NED-443 B7 on enclosed inquiry slip

Lightnin® Mixers mix fluids faster, cheaper

Check the places in your plant or department where *rapid, thorough fluid mixing* could give you higher productivity or a better product.

Then try putting a LIGHTNIN Mixer to work in just one of these places.



PORTABLE Make any container an efficient mixing vessel. Thirty models; direct or gear drive, electric or air driven. Sizes ¼ to 3 HP. Send for Catalog B-108.

See how it stops the costly, wasteful drudgery of mixing or stirring by hand or with old-fashioned equipment. Gives you fully uniform mixing in minutes—or even in seconds—at much lower cost than by hand.

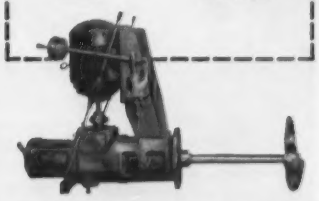
You can get LIGHTNIN Mixers for *any* fluid mixing job, in tanks of any size or shape. You get the exact mixing action you need—with results *guaranteed*.

To decide which LIGHTNINS can best help you mix fluid more profitably, send today for 16-page Bulletin B-109 illustrating the complete line. For facts on LIGHTNINS shown here, check the reader service slip for specific catalogs.

Which of these 8 fluid mixing jobs can you do more efficiently with a LIGHTNIN Mixer?

- ✓ Mix, blend, or stir liquids
- ✓ Suspend solids in liquids
- ✓ Circulate liquids or slurries
- ✓ Dissolve solids
- ✓ Control crystal size
- ✓ Transfer heat within a vessel
- ✓ Disperse gases in liquids
- ✓ Wash solid materials

TOP ENTERING or bottom entering. Turbine, paddle, and propeller types. Hundreds of power-speed combinations. Sizes ¼ to 500 HP. Send for Catalogs B-102, B-103.



SIDE ENTERING For tanks up to 6 million gals. With stuffing box or quickly replaceable mechanical seal. Easily serviced without draining tank. Widest choice of motors, materials to match your operating conditions. Sizes 1 to 25 HP. Send for Catalog B-104.

MIXING EQUIPMENT Co., Inc.

165-b Mt. Read Blvd., Rochester 11, N.Y.

In Canada: Greey Mixing Equipment, Ltd., Toronto 10, Ont.

For more details circle NED-444 B7 on enclosed inquiry slip

FEDERAL TESTMASTER

TRADE MARK REG. U. S. PAT. OFF.

Copied in Foreign Countries and by nearly a dozen companies in the United States!

REGULAR TYPE Adaptable to all tool posts, height and surface gages, etc.

PERPENDICULAR TYPE For use on jig borers, in deep holes, etc.

NON-MAGNETIC TYPE For use on magnetic chucks parallels and other magnetic fixtures.

The Federal Testmaster, though extensively imitated, has never been equalled.

The crown gear movement, original with these Indicators, makes it possible to build-in the exceptionally high accuracy and sensitivity which are so valuable to users. Made in both perpendicular and regular types and graduated in .001" and .0001", or metric.

Contact pressure is extremely light. Contact points are ratchet-held for positive positioning at any angle within 180° arc — movement can be reversed.

The Testmaster is easy to set rigidly in any position and requires no complicated adapters that cause inaccuracies due to friction, lost motion and inertia. Ruggedly built for production inspection and exceptionally adaptable to the many tests required in general machine shop and tool room operations, the Testmaster has a thousand uses. Ask for illustrated bulletin.

FEDERAL PRODUCTS CORPORATION

7172 Eddy Street • Providence 1, R. I.

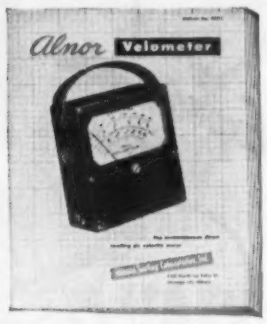
Ask FEDERAL *First*

FOR RECOMMENDATIONS IN MODERN GAGES . . .

Dial Indicating, Air, Electric, or Electronic — for Inspecting, Measuring, Sorting, or Automation Gaging

For more details circle NED-439 B7 on enclosed inquiry slip

FREE



ILLUSTRATED BULLETIN

How you can save time by measuring air velocities with an

ALNOR VELOMETER

Developed to facilitate quick and easy determination of air velocities, the Alnor Velometer is a compact, precision instrument that provides instantaneous, direct readings in feet per minute, without timing, calculations or reference to conversion tables. Guaranteed accurate, in ranges from 20 f.p.m. to as high as 24,000 f.p.m. Also available with metric or miles-per-hour calibrations.

Tear out this ad and mail it with your business letterhead to Illinois Testing Laboratories, Inc., Room 329, 420 N. LaSalle St., Chicago 10, Ill.

Alnor

PRECISION INSTRUMENTS FOR EVERY INDUSTRY

For more details circle NED-445 B7 on enclosed inquiry slip

AUTOMATIC HARDNESS TESTER handles 1000 rockwell tests per hour on 0.03 to 6-in. thick workpieces

Large production runs are automatically classified at rates up to 1000 per hour according to rockwell hardness on this console model size 3 tester. It will check any metal on rockwell scales of A to K. It automatically classifies tested workpieces into correct, too hard and too soft categories. Controlled hardness limits are within two rockwell numbers. It has an automatic counter and safety stop for pieces that are not fed properly.

Parts can be manually fed and disposed of, or semi-automatically handled with manual loading and automatic disposal and classification. Single tests can also be performed. Red, green and yellow lights indicate the hardness classification. Machine will handle materials with thicknesses ranging from 0.03 to 6 in. Made by **American Chain & Cable Co.**, Wilson Mechanical Instrument Div., Dept. NED, 929 Connecticut Ave., Bridgeport 2, Conn.

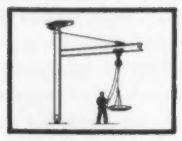
For more details circle NED-448 B7 on enclosed inquiry slip

CONCO JIB CRANES

versatile and inexpensive

Where space and budget are both limited, CONCO self-supporting, wall and mast-type jib cranes have a wide application—on the loading platform, in the warehouse, machine shop or foundry. CONCO jib cranes may be furnished with CONCO hand or electric hoists and are available with floor plate or embedded mounting.

CONCO wall bracket jib crane

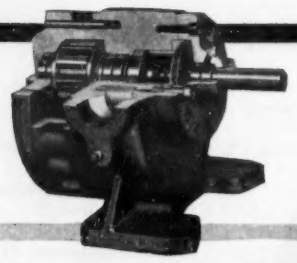


CONCO mast-type jib crane

CONCO ENGINEERING WORKS
Division of H. D. CONKEY & COMPANY
57 Grove Street • Mendota, Illinois
AFFILIATES Conco Engineering Works-Domestic Heating Equipment
Conco Building Products, Inc., Brick, Tile, Stone

For more details circle NED-451 B7 on enclosed inquiry slip

ROPER OFFERS YOU *FLEXIBILITY*



GEAR PUMPS

Designed to Your Requirements

Send your specifications for the answer based on the proven Roper pumping principle.

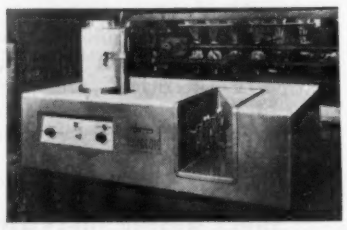
Send for FREE Booklet
"HOW TO SOLVE PUMPING PROBLEMS"

GEO. D. ROPER CORPORATION
662 BLACKHAWK PARK AVE.
ROCKFORD, ILLINOIS

ROPER *Rotary Pumps*

For more details circle NED-446 B7 on enclosed inquiry slip

INFRARED SPECTROPHOTOMETER compact bench unit for the small lab speeds up materials analyses



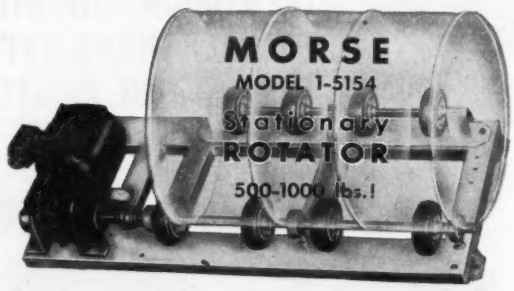
Simple - to - operate double - beam infrared spectrophotometer for the small company and laboratory is a self-contained bench unit that weighs only 120 lb. Instrument can be used for fast purity checks of raw materials, for recording progress of organic synthesis, for molecular structure study and for precise quantitative analysis.

Unit scans a spectral range from 2.5 to 15.0 microns, and resolution is 0.05-microns at 10 microns. Wavelength accuracy is 0.030-microns throughout rocksalt region, and wavelength reproducibility is better than 0.01-microns. Noise level is ±1 per cent, and quantitative accuracy is 1 per cent. Instrument cancels atmospheric background, minimizes stray light and has high resolution. It also has manual slit adjustment for differential analysis.

Unit measures 27½ x 17 x 8½ in. and requires only a 120-v, 60-cycle power source. It records each analysis on 8½ x 11-in. drum chart paper. Made by **Perkin-Elmer Corp.**, Danbury Rd., Norwalk, Conn.

For more details circle NED-449 B7 on enclosed inquiry slip

HEAVY DRUM ROTATING



Cuts Costs . . . Fast . . . Safe

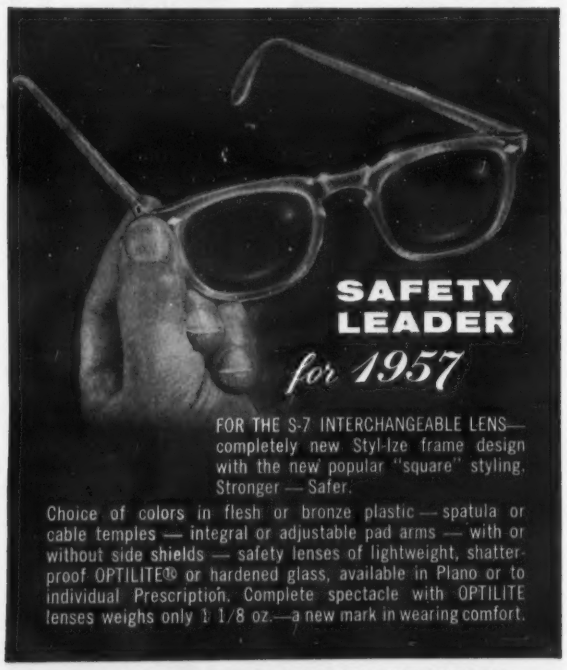
You can now mix, blend or tumble loads up to 1000 lbs. with the new MORSE Model 1-5154 Stationary ROTATOR. It is primarily engineered for heavy loads in 30 to 55 gallon drums yet lesser loads can be rotated with equal efficiency. Any diameter drum can be mounted by adjusting only three bolts.

The rugged ½ H.P. motor can be geared to give any fixed speed from 5 to 30 RPM. Six inch drive wheels (4) and idler wheels (4) have Neoprene treads for smooth, non-slip revolving. Drive shaft, idler shaft and all welded steel frame are extra rugged construction for long-lasting, trouble free operation.

A double drum model No. 2-5154 with a 2000 lb. capacity is also available. Write today for brochure on complete Morse line.

MORSE *MANUFACTURING CO., INC.*
756 West Manlius St. East Syracuse, N. Y.

For more details circle NED-452 B7 on enclosed inquiry slip



FOR THE S-7 INTERCHANGEABLE LENS—completely new Styl-Ize frame design with the new popular "square" styling. Stronger — Safer.

Choice of colors in flesh or bronze plastic — spatula or cable temples — integral or adjustable pad arms — with or without side shields — safety lenses of lightweight, shatter-proof OPTILITE® or hardened glass, available in Plano or to individual Prescription. Complete spectacle with OPTILITE lenses weighs only 1 1/8 oz.—a new mark in wearing comfort.

Write for S-7 information, or phone your nearby USSSCO Safety Service Engineer.
Branches in Principal Industrial Cities

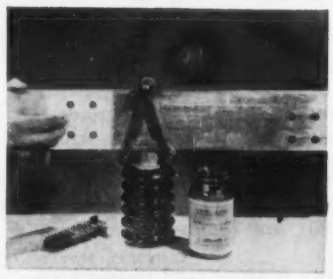
UNITED STATES SAFETY SERVICE CO.
Div. E 2, 1215 McGEE ST., KANSAS CITY 6, MO.
In Canada: PARMELEE, LTD., Toronto & Montreal

For more details circle NED-447 B7 on enclosed inquiry slip

GENUINE — SIMPLE

SILVER PLATING

"ON THE JOB" WITH POWDER



Purposes of silver plating need not be explained to you of the electrical field.

The biggest problems of silver plating are its convenience, economy and thoroughness. "Cool-Amp" silver plating POWDER is the answer to these problems.

"Cool-Amp" deposits a genuine coat of silver that will not peel off and provides cool maximum conductivity for copper, brass or bronze contacts. It has been proven equal to any electroplating for bolted and stationary contacts and is far more adaptable . . . always ready to use.

"Cool-Amp" POWDER offers a quick and easy solution to heating due to oxidation, improves the continuity of electrical service and reduces maintenance.

"Cool-Amp" is completely harmless to the user and is simple to apply. It can be used by any number of people at the same time. ON THE JOB, in underground vaults and sub stations and in hard-to-get-at places. The only equipment needed is a sharp steel wire brush or abrasive cloth, clean rag and water.

Dampen a rag, dip in "Cool-Amp" and rub on surface. One pound will silver plate approximately 6,000 square inches.

$13.50 PER POUND **SHIPPED PREPAID**
WRITE FOR FREE SAMPLE AND QUANTITY QUOTATIONS
GENUINE • SIMPLE SILVER PLATING

The COOL-AMP *Co.*

Dept. ED. 8603 S.W. 17th Avenue, Portland 19, Oregon

For more details circle NED-450 B7 on enclosed inquiry slip

Cut inventory, maintenance, vibration, with Veelos, the adjustable V-belt!

Four 100' reels of Veelos (O, A, B, C widths) meet every V-belt need up to 316 sizes . . . store in *inches of space!*

CUT DOWN-TIME! Veelos is adjustable—no need to tear down outboard bearings, reset, tilt or move motors to make belt replacement or repairs. Tighten or change your Veelos belt by adding or removing links. No more waiting for a new belt, or new matched set when a belt gets loose!

CUT VIBRATION! Install Veelos in place of ordinary endless belts. Your Veelos salesman can prove, with the amazing Veelos Vibration Analyzer, that Veelos cuts vibration up to 90%!

Write for FREE Veelos Data Book to: MANHEIM MANUFACTURING & BELTING CO.
705 Stiegel St.
Manheim, Pa.

VEELOS THE BALANCED LINK V-BELT

Veelos is known as Veelink outside U.S.A.

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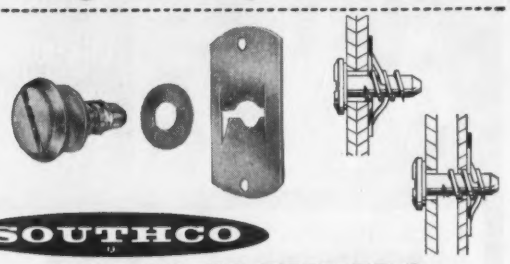
For more details circle NED-453 B7 on enclosed inquiry slip

for quick attachment and removal . . .

through wide range of thickness

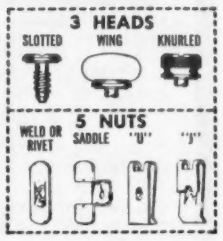


SOUTHCO

SCREW FASTENERS

Ample tolerance, inherent in Southco Screw Fastener design, permits use of one grip size for many jobs, simplifies stock requirements. "Floating" screw assembly eliminates alignment problems. Rugged, strong, no springs . . . easy to install.

Write today for free copy of 52 page Fastener Handbook. Southco Division, South Chester Corporation, 243 Industrial Highway, Lester, Pa.



SOUTHCO FASTENERS LION

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For more details circle NED-454 B7 on enclosed inquiry slip

Here's Just 3 Reasons Why So Many Welders Have Switched

- Wrap around Glass Fibre Tip Insulation—30% more heat resistance than any other make!
- Brilliant Red Tips and Tricker —Bright Yellow Handle— all Glass Fibre, an outstanding Safety Feature!
- Body completely insulated— no bare spots!

HI-AMP®

ELECTRODE HOLDERS

are the most economical to buy and maintain too!

Just ask any Welding Supply Dealer anywhere for PROOF of the above statements.

LENCO, INC.

(Formerly Wagner Mfg. Co. Inc.)

JACKSON . . . . . MISSOURI

Weld with HI-AMP

For more details circle NED-455 B7 on enclosed inquiry slip

Large-capacity, extremely accurate

DEVILBISS AIR REGULATOR

Leakproof

Fingertip adjustment

Compact size 3" x 4½"

Capacity 80 c.f.m.

DeVilbiss HAA Air Pressure Regulator. Two-stage control provides easy knob setting, sensitive regulation, less pressure drop. Offers extreme accuracy wherever controlled air pressure is needed. Regulates pressures up to 135 lbs., with only ½-lb. variation for each 10-lb. fluctuation in main line pressure! No large, heavy springs! Two inlets and three outlets (⅜" female N.P.T.) allow for any type installation. Write for details.

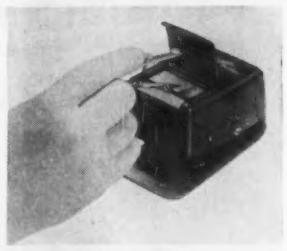
DEVILBISS THE DEVILBISS COMPANY Toledo, Ohio

Santa Clara, Calif. • Barrie, Ontario • London, England

For more details circle NED-456 B7 on enclosed inquiry slip

PENCIL POINTER

makes needle sharp or flat points

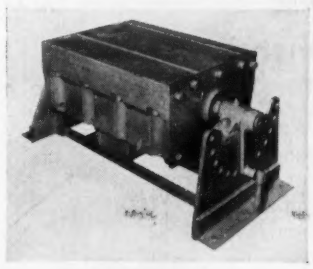


One-hand-operated Pencil Pointer for designers and draftsmen will point any drawing instrument from pencil to beam compass with any type point from needle sharp to flat. Flicking open lid starts motor which vibrates filing plate for sharpening lead. Closing lid shuts off motor. Built-in wiping pad is provided. File plates and wiping pads are easily replaceable. Plastic case is offered in six colors. Made by **Ferance Construction Co.**, Dept. N, 28 Woodside Dr., Penfield, N. Y.

For more details circle NED-457 B7 on enclosed inquiry slip

GRINDER HOLDING MAGNETS

hold castings in any position

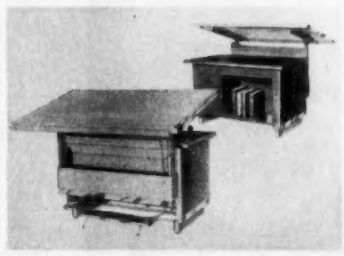


Odd - shaped castings can be held securely and precisely in any position for grinding operations by three sizes of grinder holding magnets. Tilting models permit locking the working surface at any angle up to 30 degrees either side of center. Sizes available are 16 x 14 in., 16 x 24 in. and 16 x 40 in. All are wound for 115 or 230 v dc operation with hand or foot switch. Made by **Indiana Steel Products Co.**, Stearns Magnetic Products Div., 635 S. 28th St., Milwaukee 46, Wis.

For more details circle NED-458 B7 on enclosed inquiry slip

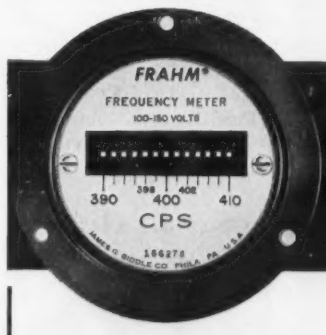
DRAFTING-REFERENCE UNIT

affords optimum use of space



Flexible, productive use of existing floor space is achieved with this Stacor-Matic drafting-reference unit. Table serves man in front as reference facility and the man behind as drawing table with wide-range height and slope adjustment. Reference section has generous drawer and file space. Drawers are steel and operate smoothly on ball bearings. Reference surface is covered with desk-top linoleum, and foot rest has skidproof rubber mat. Bases feature floor-leveling devices. Made by **Stacor Equipment Co.**, 786 E. New York Ave., Brooklyn 3, New York.

For more details circle NED-459 B7 on enclosed inquiry slip



FRAHM® FREQUENCY METERS

- ....in Switchboard, Miniature and Portable types
- ....indicate alternating current frequency from 15 up to 1500 cycles per second
- ....applicable to pulsating or interrupted D-C as well as A-C supply circuits

Frahm Resonant Reed Miniature Sealed Type Frequency Meters are hermetically sealed to withstand excessive humidity, dust, fungus attack, moisture (as aboard ship) and other destructive atmospheric conditions. Available in 2½" and 3½" sizes.

Frahm Frequency Meters can be specially designed to your specifications for range, methods of activating, scale graduations, etc. We invite your correspondence.

WRITE FOR BULLETIN 32-D.

JAMES G. BIDDLE CO.

Electrical & Scientific Instruments

1316 ARCH STREET, PHILADELPHIA 7, PA.

For more details circle NED-460 B7 on enclosed inquiry slip

CONDENSED DATA ON

B&W CARBON STEEL PRESSURE TUBING SEAMLESS AND WELDED

Analyses, physical and mechanical properties, fabrication, welding procedures and expanding into tube seats are explained in B&W Technical Data Card 142. Write for your copy. Address: The Babcock & Wilcox Company, Tubular Products Division, Dept. NED-2, Beaver Falls, Pa.

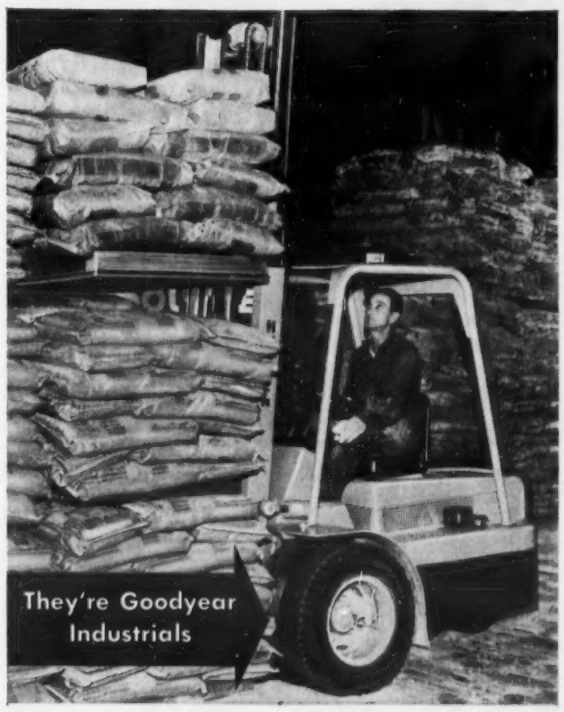
B&W TUBULAR PRODUCTS DIVISION

TA-6073-LP

Seamless and welded tubular products, seamless welding fittings and forged steel flanges in carbon, alloy and stainless steels.

For more details circle NED-461 B7 on enclosed inquiry slip

Can the tires take the load? You said a forkful!



High lift fork trucks are great for helping you get the most out of overhead storage space.

But you need more than a good lift truck for this type of job. You need the right kind of tires, too.

The Pneumatic Industrial Lug Tire, in use here, is especially built by Goodyear to supply the firm traction you want. Its close nested lugs resist tread squirming and slippage—assuring reduced sidesway and safer handling.

If you have an industrial tire problem in your plant, why not consult your Goodyear dealer. He'll show you how Goodyear fits the right industrial tire to the truck — and to the job. Phone him soon, or write: Goodyear, Industrial Tire Sales, Akron 16, Ohio.

Look for this sign; there's a Goodyear dealer near you.

GOODYEAR TIRES

USE THE RIGHT TIRE FOR THE JOB—BUY AND SPECIFY

GOODYEAR

INDUSTRIAL TIRES

For more details circle NED-462 B7 on enclosed inquiry slip

• INDUSTRIAL OVENS
• DUST COLLECTORS
• SPRAY BOOTHS
• PARTS WASHERS

EST. 1912

INDUSTRIAL OVENS

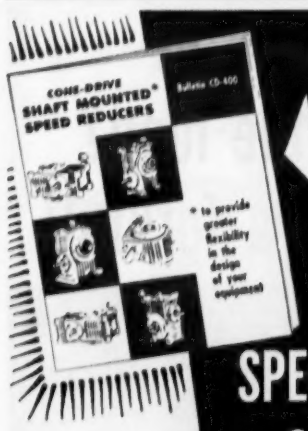
Ovens Engineered and Designed to meet your particular plant layout and process requirements. Insulated Panel construction on Structural Steel Framing. Designs include: Compartment Type; Horizontal Type; Vertical Type; and "A" Type; floor or overhead mounted with continuous or intermittent conveying—Indoor, Outdoor, or Roof Installations.

For Bulletins and Quotations, write to:

NEWCOMB-DETROIT

5769 RUSSELL ST. • DETROIT 11, MICH.

For more details circle NED-464 B7 on enclosed inquiry slip



BULLETIN CD-400

New

COMPLETE SPECIFICATIONS

CONE-DRIVE SHAFT MOUNTED SPEED REDUCERS

★ fractional to 13 hp
★ reductions from 5:1 to 60:1
★ readily motorized
★ feature Cone-Drive double-enveloping worm gear design for maximum load-carrying capacity in minimum size.

CONE-DRIVE GEARS DIV.
MICHIGAN TOOL COMPANY
7171 E. McNICHOLS RD. DETROIT 12, MICH.

For more details circle NED-465 B7 on enclosed inquiry slip

Want a laminated plastic with excellent electrical characteristics over a wide range of humidities and temperatures?

Try Synthane Glass Epoxy

Terminal board punched from Synthane Grade G-10 Glass Epoxy

A continuous filament woven glass fabric grade, impregnated with epoxy resin. This grade is particularly noted for its excellent electrical values. It possesses low moisture absorption, low dissipation factor and maintains these excellent electrical characteristics over a wide range of humidities and temperatures. This grade possesses good dimensional stability and excellent mechanical properties and is recommended for use at temperatures up to 300 deg. F. and is often used for printed circuit applications.

SYNTHANE

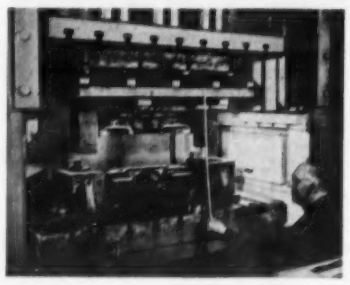
SYNTHANE CORPORATION
N.E. River Road, Oaks, Pa.

☐ Send me promptly information about Synthane G-10 laminated plastics
☐ I am interested in other Synthane Grades

NAME _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

For more details circle NED-466 B7 on enclosed inquiry slip

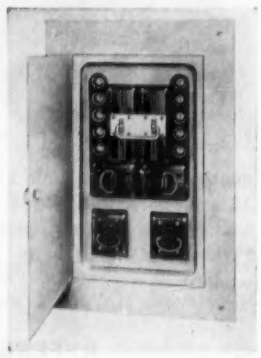
PUNCH PRESS LIGHTS
illuminate entire die bed area



Proper glare-free illumination of the entire die bed area of punch presses is provided by line of Presslite machine lighting units. They eliminate eyestrain, minimize operator fatigue and make for on-the-job safety. Plexi-lux louvered horizontal or vertical shield of thick, shatterproof, oil-resistant Plexiglas eliminates glare but permits high light transmission with low surface brightness. Five completely-wired standard models in steel housings operate on 110 v, 60 cycles ac. Each has four 8 to 40-w single-pin cold cathode lamps. Made by **Sun-Lite Mfg. Co.**, Dept. PL-420, 2555 Bellevue Ave., Detroit 7, Mich.

For more details circle NED-467 B7 on enclosed inquiry slip

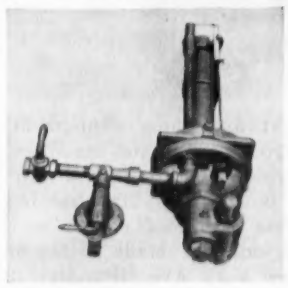
FUSIBLE MAIN SWITCH
100-amp unit for 120-240 v service



A 100-amp main disconnect for control of two 60-amp, 240-v pullouts; two 30-amp, 240-v pullouts; and ten plug fuse branch lighting circuits are incorporated in this No. 14610 fusible main switch, available in flush or surface enclosure. Noninterchangeable branch pullouts prevent over-fusing, and reversible puller heads indicate "on" or "off" position. A dead front eliminates danger of accidental contact. Unit measures 3 15/16 x 13½ x 23⅞ in. Made by **Federal Pacific Electric Co.**, Dept. NED, 50 Paris St., Newark 1, N. J.

For more details circle NED-468 B7 on enclosed inquiry slip

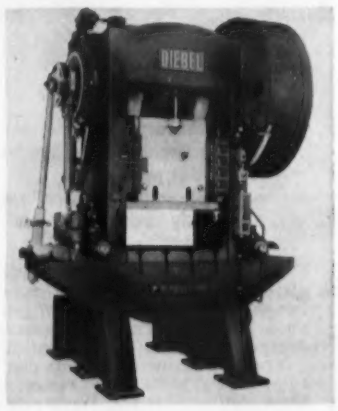
RADIANT TUBE BURNER
for factory or field installation



Most requirements for indirect heating of industrial ovens, furnaces and muffles are met by this packaged RT radiant tube burner. It can be factory-installed in new equipment or used in modernizing existing units by installation directly in metal or ceramic radiant tubes. Sealed mixing nozzle keeps air and gas separate to point of discharge, minimizing danger of flashback. Five series have capacities from 250,000 to 625,000 Btu. Choice of slip fit or flange mounting, air and gas regulation and gas pilot, spark or pilot-spark ignition adds to flexibility. Automatic control is optional. Made by **Eclipse Fuel Engineering Co.**, 1002 Buchanan St., Rockford, Ill.

For more details circle NED-469 B7 on enclosed inquiry slip

150-TON PRESS
automatic machine has air clutch



Cylindrical ram, large bearing surfaces, air clutch and spring-applied brake, shock mounts and safety shut-off devices are features of 150-ton Diebel Hi Production automatic press. It has a recirculating lubrication system for all main bearings and slide. Lamination work, progressive blanking and forming, and large blanking work can be performed. Bed size from left to right by front to back is 40 x 32 in. or 56 x 32 in. Width of feed is 18 in. and length of feed is 0 to 13⅝ in. Speed range is 70 to 210 strokes per minute. Made by **Di Machine Corp.**, Dept. G, 2711 W. Irving Park Rd., Chicago 18, Ill.

For more details circle NED-470 B7 on enclosed inquiry slip

"TORIT dust collectors saved us $3,000."

FREE BOOKLET shows you how to trap harmful dust better at less cost with TORIT.

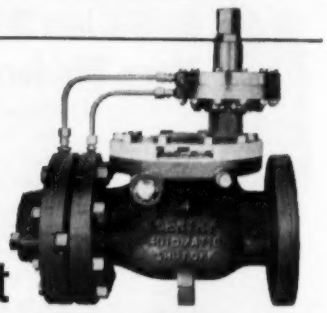
Your plant can have the same initial savings and cost-cutting operation now enjoyed by the Sico Manufacturing Company, national producers of tables and seating equipment. Sico President, Kermit H. Wilson states, ". . the lowest bid we had for a central dust collection system of minimum capacity was just under $4,000. Our $900 Torit installation has completely solved our dust problem and gives us greater flexibility than would be possible with a central system." There's a TORIT Collector to meet every type of dust problem, why not investigate?

FREE facts on TORIT DUST COLLECTORS that reduce maintenance costs, up production, improve employee morale. Write today to:

TORIT MANUFACTURING CO.
287 Walnut Street, St. Paul 2, Minn., Dept. 202

For more details circle NED-471 B7 on enclosed inquiry slip

SENTRY VALVES



stop or start full round flow in split second

Latch-type valve closes instantly!
Piston-type valve opens instantly!

Sentry Valves are used on liquid and gas lines . . . protect property, materials and processing. Sizes 1½" to 8".

Have details on quick, positive action of this remarkable Coppus line at your fingertips. WRITE to COPPUS ENGINEERING CORPORATION, 701 Park Avenue, Worcester 2, Mass.

ANOTHER COPPUS "BLUE RIBBON" PRODUCT

For more details circle NED-472 B7 on enclosed inquiry slip

No. 288

Stanley heavy duty 8" grinder

A production model with 8" wheels on an extended frame, this new Stanley No. 288 bench grinder handles large, odd-shaped pieces with ease. Wheel guards are drilled for Stanley eyeshields and have exhaust outlets and spark shields. Motor is ¾ hp, capacitor start, induction run.

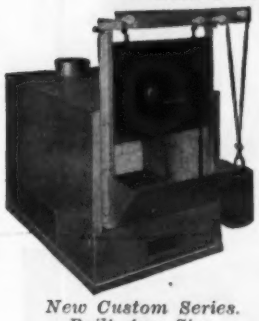
Your industrial distributor has No. 288 or can get it for you now. It is the latest addition to the complete line of Stanley bench grinders and quality electric tools. For free, fully illustrated catalog No. 56, write Stanley Electric Tools, Division of The Stanley Works, 582 Myrtle St., New Britain, Conn.

STANLEY

For more details circle NED-473 B7 on enclosed inquiry slip

INDUSTRIAL INCINERATOR

—Pays for Self in 6 to 12 Months —Burns Wet or Dry Refuse



New Custom Series. Built Any Size.

Winnen Industrial Incinerators save more than their cost in refuse hauling charges within the first six to twelve months, according to thousands of satisfied users. Burn wet or dry refuse, or mixed. Choice of fuels. No fuel needed to burn dry refuse. Oversize feed doors permit feeding crates and boxes without breaking them up.

Winnen Incinerators can be installed indoors or out, take up little space. Grates are heavy cast-iron. You never have to "fish out" cans or non-combustibles through the feed doors. The grates dump completely. Combustion chamber is lined with heavy refractory material, shell is heavy galvanized steel. Optional equipment is available, such as prefab chimney, automatic fuel control, etc.

Three styles. Model C is available in 4, 10, 15, 20 or 30 bushel sizes. It is ideal for burning refuse that is free from smoke and odors. Model C-2 is available in four sizes. The new Custom Wincinator is built in any size, on order. Both the C-2 and Custom lines are equipped with a secondary combustion chamber for smokeless and odorless operation. Ideal for use in or near municipalities where all smoke and odor must be eliminated, they conform to the most rigorous building codes everywhere. Fully guaranteed one year.

Models C and C-2 are shipped knocked down with complete, easy-to-follow directions for installing. Any handy man can set up a Wincinator quickly. No mason needed. Easy to relocate later if you wish.

Send for further information. Write today to: **Winnen Incinerator Co.,** 932 Broadway, Bedford 10, Ohio. *Advt.*

▲ For more details circle **NED-474 B7** on enclosed inquiry slip ▲

Do it with AIR POWER

Apply it with NOPAK Air Cylinders

There's a size and type of NOPAK Air Cylinder to meet practically every application need. They are available in 3 classes of construction, 6 standard mountings. Class 1 (standard brass tubing and tie-rod construction) is available from Shelf-Stock in standard sizes up to 8" in diameter with 15" maximum stroke. Write for latest Shelf-Stock Listings.

Write for Bulletin 101 which contains complete engineering data and dimensions on all 3 classes of NOPAK Air Cylinders.

There's a NOPAK representative near you. Look in the yellow pages of your Telephone Directory or write —

GALLAND-HENNING NOPAK DIVISION
2755 SOUTH 31st STREET • MILWAUKEE 46, WISCONSIN
Representatives in Principal Cities

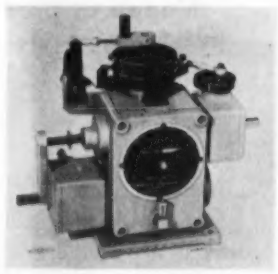
NOPAK

VALVES and CYLINDERS
for AIR and HYDRAULIC SERVICE

▲ For more details circle **NED-475 B7** on enclosed inquiry slip ▲

VARIABLE SPEED TRANSMISSION

adjustable over 8:1 speed range



This variable speed transmission can be adjusted over speed range of 8:1 either manually or automatically while unit is stopped or running. Components are completely enclosed and run in oil. Control can be through electrical, mechanical, hydraulic or pneumatic means. Optional spur, bevel or worm gear reductions are available and can be installed in any of four positions or planes. Made by **George E. Clentimack Co.,** 230 West St., North Attleboro, Mass.

▲ For more details circle **NED-477 B7** on enclosed inquiry slip ▲

VACUUM CLEANER

has bypass motor for wet pick-up

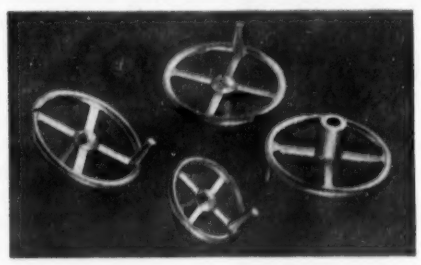
Improved Alaco model 500 BP vacuum cleaner features a bypass motor for protection against moisture on water pick-up work. Chromed motor dome, baked enamel finish inside and outside of 12-gallon tank, enclosed filter, quiet operation and overall weight of 45 lb are other improvements. Unit rolls on three rubber swivel casters. The 1-hp ball bearing motor creates 60-in. vacuum lift. Full set of tools handles both wet and dry pick-up work. Made by **Ace Co.,** 118 W. Washington St., Ocala, Fla.

▲ For more details circle **NED-478 B7** on enclosed inquiry slip ▲

DIE CAST WHEELS

hand, winch and steering types

Series of standard zinc alloy die cast hand, winch and steering wheels is designed for toy, appliance, power tool and electronic industry applications. They



are stocked in 1, 1¼, 1½ and 1¾-in. OD sizes. Trunnion pins, hub lengths and diameters, hole diameters and shapes can be varied to suit the use. They are cast in one piece and are ready for plating. Made by **Gries Reproducer Corp.,** 400 Beechwood Ave., New Rochelle, N. Y.

▲ For more details circle **NED-479 B7** on enclosed inquiry slip ▲

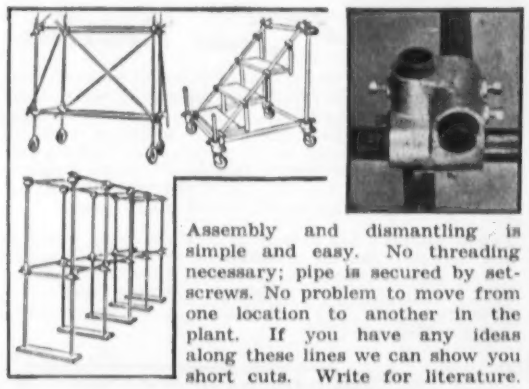
MAKE YOUR OWN

Storage & Pallet Racks . . . Adjustable & Frame Scaffolds . . . Portable Docks . . . Rolling Steps . . . Rolling & Stacking Pallets . . . Shelter & Work Bench Frames, etc.

with STRONG, MALLEABLE, TOUGH

AMIDON FITTINGS

(and standard 1-inch pipe)



Assembly and dismantling is simple and easy. No threading necessary; pipe is secured by set-screws. No problem to move from one location to another in the plant. If you have any ideas along these lines we can show you short cuts. Write for literature.

AMIDON ENGINEERING CO.

ELYRIA 20, OHIO

▲ For more details circle **NED-480 B7** on enclosed inquiry slip ▲

Investigate the new

Cementable TEFLON®

tetrafluoroethylene resin

Now TEFLON can be bonded with commercial adhesives

Here is news of importance to designers, maintenance and production engineers. A special technique has been developed to alter the surface of TEFLON so that you can bond it with commercial adhesives.

This opens up new ways to take advantage of the remarkable properties of TEFLON. For example, you can readily cover large surface areas with TEFLON. Line tanks, vats, pipes, or digesters with this engineering plastic which has exceptional chemical resistance and a working temperature as high as 500°F. Sticky materials release more freely from untreated surfaces of TEFLON than from any other material.

Use pressure-sensitive adhesives. Bond various materials to tubing, cylinders, rods and bars of treated TEFLON. In cementable tape and sheet form, TEFLON makes high-grade electrical insulation. Use cementable TEFLON as low-friction facings and linings on hoppers and conveyor surfaces.

Get more information about cementable TEFLON by mailing the coupon.

DU PONT
REG. U. S. PAT. OFF.

Better Things for Better Living . . . *through Chemistry*

Send for more information

E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Dept. Room 542, Du Pont Building, Wilmington 98, Delaware
In Canada: Du Pont Company of Canada (1956) Limited, P. O. Box 660, Montreal, Quebec
Please send me more information about Cementable TEFLON.

Name _____
Company _____ *Position* _____
Street _____
City _____ *State* _____
Type of business _____

▲ For more details circle **NED-481 B7** on enclosed inquiry slip ▲

Save Time and Money with

Cargotainers®

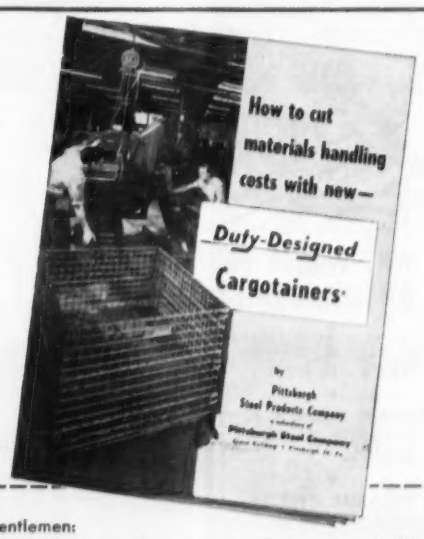
New 24-page Pittsburgh Steel Manual Tells You How

Sturdy, economical steel wire mesh Cargotainers can be "duty-designed" for your particular products to save you time and money.

Cargotainers are working for some of America's largest manufacturers, handling everything from auto parts and thread to smoked hams and the United States mail. Cargotainers pay for themselves quickly because they reduce damage to merchandise, speed operations, double storage space and save labor.

A new, 24-page illustrated manual on Cargotainers has just been published. It is crammed with case histories on how specific companies save time and money in materials handling after switching to Cargotainers. Get your copy today. It's yours for the asking. *Pittsburgh Steel Products, a division of Pittsburgh Steel Company, 1407 Grant Building, Pittsburgh 30, Pennsylvania.*

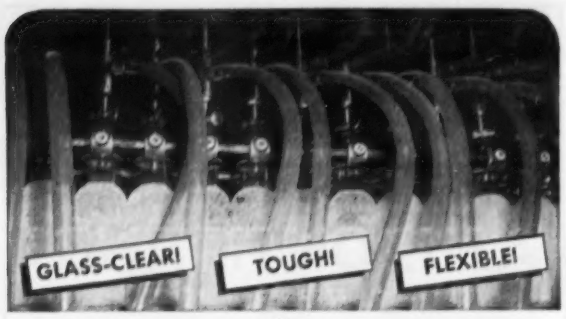
Pittsburgh Steel Products
a division of
Pittsburgh Steel Company
1407 Grant Building • Pittsburgh 30, Pa.



Gentlemen:
I would like to have a copy of your manual "How To Cut Materials Handling Costs With New Cargotainers."

NAME _____ TITLE _____
COMPANY _____ ADDRESS _____
CITY _____ STATE _____
OUR PRODUCT IS _____

▲ For more details circle **NED-476 B7** on enclosed inquiry slip ▲



TYGON *flexible plastic* TUBING

Tygon Tubings are produced in many formulations to withstand a wide range of service conditions. Some formulations are tasteless, odorless and non-contaminating—can handle high purity solutions such as liquid foods and drugs in complete safety. Others successfully handle corrosive liquids or gases and are resistant to acids, alkalis, oils, water and alcohol. All are physically tough to withstand rough usage.

Tygon Tubings are extremely flexible. They adapt to any layout — can be installed in minutes. Glass-like clarity permits visual inspection of flow. The polished bore facilitates fast, thorough cleaning. Fifty-five sizes from 1/16" to 3" i. d. provide a size for virtually every tubing need.

367-E

Write today for Bulletin T-97 for complete technical data.

Plastics & Synthetics Division

U. S. STONEWARE
AKRON 9, OHIO

For more details circle NED-482 B7 on enclosed inquiry slip

Teamed Engineering for Efficient Sealdbulk Handling

U. S. Rubber Company and American MonoRail Engineers teamed up to develop this system.

Sealdbin containers, made by U. S. Rubber Co., each hold 11,000 pounds of carbon black. American MonoRail moves the Sealdbins from flat cars to special stations for discharge thereby minimizing manual labor, time, and waste.

Send for Bulletin C-1.

AMERICAN MONORAIL COMPANY
13116 ATHENS AVENUE • CLEVELAND 7, OHIO

For more details circle NED-483 B7 on enclosed inquiry slip

Let us take over your inventory problem!

Immediate Delivery!

ANY BORE SIZE • ANY MOUNT • ANY STROKE

CARTER CYLINDERS

Here's real help for engineers and designers who need fast action on cylinders. Carter's exclusive key type locking design and simplicity of parts *makes it possible to ship cylinder orders in 24 hours or less!* Now you can have rugged, dependable, compact quality cylinders when you want them. Your order is in process *minutes after we get it.* Get in touch with us *today* for cylinders you need tomorrow.

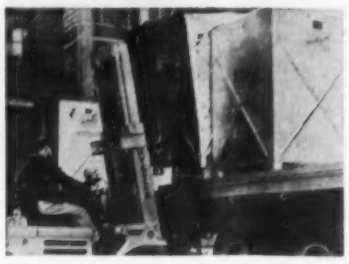
Catalog File!
Air Cylinders; 750 Lb. Hydraulic; 1500 Lb. Hydraulic; Clamp Cylinders; Air Valves; Built-in Valve Type Cylinders. Complete with parts data, specifications and prices. Send today!

24 HOUR PHONE SERVICE—If you need fast service call your Carter representative or the plant. LANSING, ILLINOIS, GRanite 4-3305 or CHICAGO, BAyport 1-7186. Teletype LNSG, ILL 1119X.

CARTER CONTROLS INCORPORATED
2876 Bernice Road, Lansing, Illinois (Chicago Suburb)
AIR CYLINDERS • HYDRAULIC CYLINDERS
AIR VALVES • ROTARY ACTUATORS • SPECIAL CONTROLS

For more details circle NED-484 B7 on enclosed inquiry slip

SHIPPING & STORAGE BINS
for granular or powdered materials, shipped as part of carrying vehicle

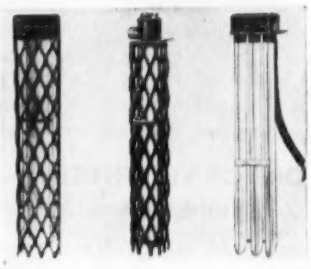


Powdered or granular materials can be shipped or stored in Deltainer hermetically sealed portable steel bins. These bins form the basis for the Uni-Hopper shipping system. When shipped by truck or on special freight cars, bins are considered part of carrying vehicle and go without freight charges. Also, special cars can be shipped back to points of origin at no return charge—either for cars or their full loads of 28 empty Deltainers.

Available sizes are 36, 65 and 88 cu ft, all of which are rated for 5000-lb load capacities. A 3-in. diameter tube runs horizontally through each container for rigidity and to afford a tie-down point in transit. Rod inserted in tube provides an axis for inverting and emptying the container. Units are easily handled by pallet or fork lift trucks, or overhead cranes. Made by **Delta Tank Mfg. Co.,** 8150-NE Florida Blvd., Baton Rouge, La.

For more details circle NED-485 B7 on enclosed inquiry slip

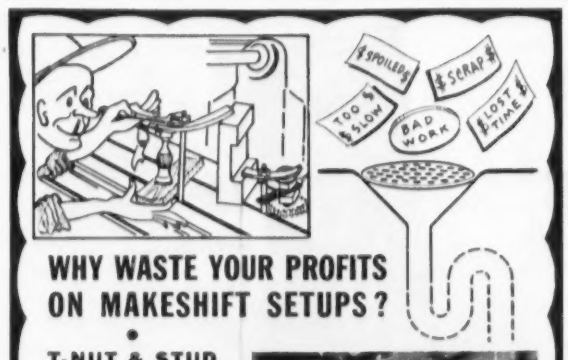
IMMERSION HEATERS
straight, multiblade and U-type cover most immersion heating needs



Resistance heating element mounted in U-shaped translucent fused quartz tube and supported with heat-conducting powder comprises this hermetically-sealed U-type immersion heater. One of four basic types offered, heater has diamond type, plastisol-coated guard and is used to heat electroplating and pickling solutions. The GN type straight-tube heater for acid solution applications has the same diamond guard, vapor-proof junction box and replaceable element. It comes in lengths up to 9 ft and can be used in 200° F solutions.

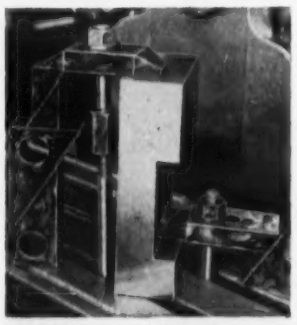
Multiblade type heater for alkaline, water or oil solution applications is offered with blades sheathed in copper, steel or stainless, depending on operation. Each blade is wired with several parallel resistance elements. An impervious graphite heater is also offered for hydrofluoric acid solutions, copper fluoborate plating baths and solutions containing hydrofluoric and concentrated phosphoric acids. Special casing prevents stray currents. Made by **Glo-Quartz Electric Heater Co.,** Dept. ME, 37934 Elm St., Willoughby, O.

For more details circle NED-486 B7 on enclosed inquiry slip



WHY WASTE YOUR PROFITS ON MAKESHIFT SETUPS?

- T-NUT & STUD SETS—12 SIZES
- STEP BLOCK & CLAMP SETS—5 SIZES
- PUNCH PRESS SETS—5 SIZES



BE WISE Save with NORTHWESTERN

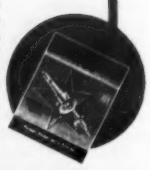
CATALOG No. 23 SENT ON REQUEST

Northwestern
127 HOLLIER AVE., DAYTON 3, OHIO

For more details circle NED-487 B7 on enclosed inquiry slip

UNLIMITED Turret Stations...
FOR MULTIPLE OPERATIONS

A P.D.Q. (Portage Double Quick) Holder and Tool Adapter in one or more stations means an extra turret station or *unlimited* stations . . . depending on the number of operations. Just a slight turn of the lock nut releases the holder and you're set for a new tool and new operation . . . all in a matter of seconds. The new P.D.Q. method of tooling can cut costs to a fraction of former out-dated methods. Send for literature concerning complete information on THE NEWEST AND MOST MODERN TOOLING ADVANCEMENT IN INDUSTRY.



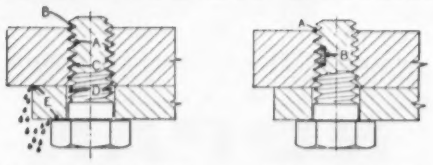
Representatives in Principal Cities

PORTAGE Double-Quick TOOL CO.
1043 SWEITZER AVENUE • AKRON 11, OHIO

For more details circle NED-488 B7 on enclosed inquiry slip

NYLOK's®
SEAL as they LOCK

HOW NYLOK WORKS



STANDARD BOLT
As bolt tightens, metal-to-metal union of LOAD BEARING faces is made at (A). But, fluid entering at (B) flows downward on NON-LOAD-BEARING faces, leaking out at (D) and (E).

NYLOK BOLT
Lateral thrust of NYLOK pellet (B) presses both LOAD-BEARING and NON-LOAD-BEARING faces tightly together. Fluid entering at (A) flows only to NYLOK pellet which provides an effective dam.

Ⓑ NYLOK® FASTENERS stop weeping bolts, gasoline, alcohol, oil, and air leaks. They thread easy... stay locked in ANY position... won't vibrate loose.

THE SECRET... a permanent insert of tough, resilient nylon easily adapted to any Ⓑ threaded fastener. Won't shrink, dry, age, or turn brittle. Unaffected by temperatures to 250°F. Cannot damage threads or seating surfaces.

ELIMINATE double inventory and costly locking devices. Save assembly time. Write for NEW brochure... call Ⓑ for quotes.

BUFFALO BOLT COMPANY
Division of Buffalo-Eclipse Corporation
NORTH TONAWANDA, N. Y.

• *3 convenient service centers*

WESTERN OFFICE	EASTERN OFFICE	CENTRAL OFFICE
Chicago	New York City	North Tonawanda
HArrison 7-2179	REctor 2-1888	JAckson 2400 (Buffalo)

Ⓑ NYLOK® FASTENERS

For more details circle NED-489 B7 on enclosed inquiry slip

Plain cast irons! Alloy cast irons!

NI-ROD "55" welds both soundly!

This ductile cast iron grate has taken more than 22 months of rough treatment in a foundry shake-out. It has been battered by 50-ton castings. But the Ni-Rod "55"* welds show not a sign of a crack!

That is proof you get strong sound welds in alloy cast irons as well as ordinary iron castings with Ni-Rod "55" electrodes. Use A.C. or D.C. current. Ni-Rod "55" electrode produces machinable welds that match the color of cast metal closely. *And most jobs need no preheat or post-heat.*

Send now for the folder, "Repair Cast Iron Parts Quickly and Easily." Contains illustrated stories of successful welding. Circle the number below on the NED inquiry slip.

*Registered trademark

THE INTERNATIONAL NICKEL COMPANY, INC.
69 Wall Street New York 5, N. Y.

INCO **Welding Products**
Electrodes · Wires · Fluxes

For more details circle NED-490 B7 on enclosed inquiry slip

IF YOU BUY OR SPECIFY CONTROLS

MERCOID® CATALOG No. 857

Will help make your selection easier

CONTENTS:

CONTROLS FOR PRESSURE—
DIFFERENTIAL PRESSURE—
TWO-STAGE PRESSURE—
TEMPERATURE—
TWO-STAGE TEMPERATURE
LIQUID LEVEL
FLOAT OPERATION
LEVER ARM OPERATION

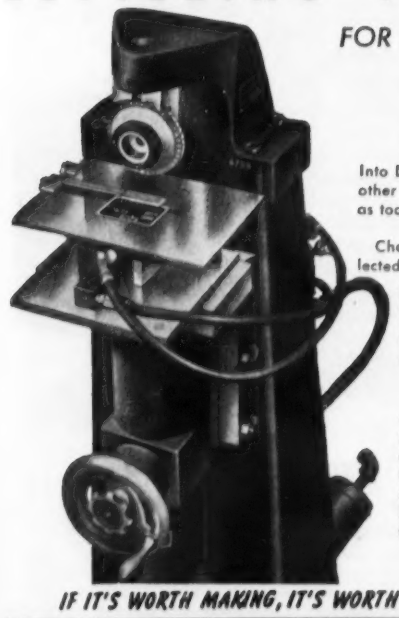
WRITE FOR YOUR FREE COPY

ASK FOR CATALOG NO. 857

THE MERCOID CORPORATION
4201 Belmont Ave., Chicago 41, Ill.

For more details circle NED-491 B7 on enclosed inquiry slip

PNEUMATIC POWER LETTERING PRESS



FOR STAMPING SELECTIVE LETTERING

Into DIE components and other metal parts such as tools, gauges and jigs.

Characters are selected by turning dial and are stamped into part when foot pedal is depressed. Spacing of characters is automatic.

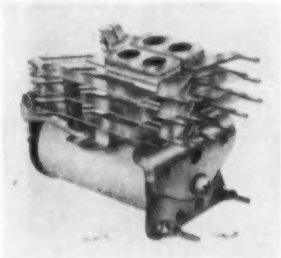
Requires 20 to 40 pounds line pressure. Write today for further information on this or any other member of the famous GTS line.

IF IT'S WORTH MAKING, IT'S WORTH MARKING.

GEO. T. SCHMIDT, INC.
1800 W. Belle Plaine Avenue
Chicago 13, Illinois

For more details circle NED-492 B7 on enclosed inquiry slip

CURRENT SWITCHING RELAY has printed circuit terminals



This type 8 relay for switching current loads is now available with printed circuit terminals having standard twin or single contact springs, or power-type contacts. Terminals are tinned for ease of soldering and ready insertion into circuit board. They are ribbed for added strength. Coil terminals are located on the same centers as on the standard relay, and dual coils employing four coil terminals are available. Made by **Phillips Control Corp.**, Dept. NED, Joliet, Ill.

For more details circle NED-493 B7 on enclosed inquiry slip

GRINDING WHEELS are fast cutting and long wearing

Fast cutting action of soft wheels and long wear of hard wheels are combined in IL Bonded grinding wheels made for swing frame, floor stand and portable grinders. Properties result from special chemicals and compounds added to the conventional resinoid bond used in the wheel mix. Wheels operate at speeds up to 9500 surface fpm. IL Bond wheels are available with Red Streak flanges for heavy duty snagging. Made by **Simonds Abrasive Co.**, 5514 Tacony St., Philadelphia 37, Pa.

For more details circle NED-494 B7 on enclosed inquiry slip

POWER PICKUP self-generates low voltage power

Model 3040 power pickup self-generates sufficient power to operate over-and under-speed controls, warning devices and low voltage electrical devices without the use of an amplifier. Output is about ten times that of conventional model 3010-A, with optimum load of 1000 ohms and 750 mh average pickup inductance. At actuating surface speeds of 250 ips or more, pickup provides enough power to operate relays having 100 milliwatt sensitivity. When using two germanium diodes in a voltage doubler circuit, it will operate conventional 2500-ohm vacuum tube plate circuit relay. Temperature limit is 200° F. Unit measures 2⅜-in. long by ¾-in. in diameter. Made by **Electro Products Laboratories**, 4504 Ravenswood Ave., Chicago 40, Ill.

For more details circle NED-495 B7 on enclosed inquiry slip

Dixon ONEMAN COIL GRABS

COST LESS... increase efficiency & safety

Coil Grab—up to 5,000 lbs. cap., 1" to 24" widths

Coil Handler—up to 15,000 lbs. cap., 18" to 48" widths

Coil Hook—up to 1,000 lbs. cap., ¼" to 6" widths

Model No.	Max. Coil Wgt. - Cap.	Width Stock Handled Min.	Width Stock Handled Max.	Radial Cap. Stock Hldd. Min.	Radial Cap. Stock Hldd. Max.
COIL GRAB					
A-10	1,000 lbs.	1"	4"	3½"	13"
A-20	2,000 lbs.	2½"	9"	3½"	12"
A-35	3,500 lbs.	7"	16"	4"	12"
A-50-12	5,000 lbs.	4"	12"	7"	24"
A-50-24	5,000 lbs.	10"	24"	4"	10"
COIL HANDLER					
M-30	15,000 lbs.	18"	30"	8"	16"
M-36	15,000 lbs.	24"	36"	8"	16"
M-48	15,000 lbs.	24"	48"	8"	16"
COIL HOOK					
H-10-6	1,000 lbs.	¼"	6"	1"	13"

Dixon *Write* for FREE Literature
AUTOMATIC TOOL, Inc.
2300 23rd AVE. • ROCKFORD, ILLINOIS

For more details circle NED-496 B7 on enclosed inquiry slip

ROCHESTER

can give you the right thermometer for the job . . .

BIMETAL THERMOMETERS are available in both angle-form and straight-form types. With straight-form models, stem may be located in any position around entire circumference of head.

ALL RMC thermometers are available with various stem lengths from 2½"—up to 70" on some models. All are hermetically sealed, silicone dampened, and have external recalibration feature.

MANY different types are available, with dial sizes ranging from 1" to 5". Scale Ranges from —150° F to +1000° F. All RMC bimetallic thermometers are guaranteed accurate to 1% of scale range.

REMOTE INDICATING *Vapor pressure temperature gauges are available in production quantities—3½" dial—wide temperature ranges and tube lengths available.*

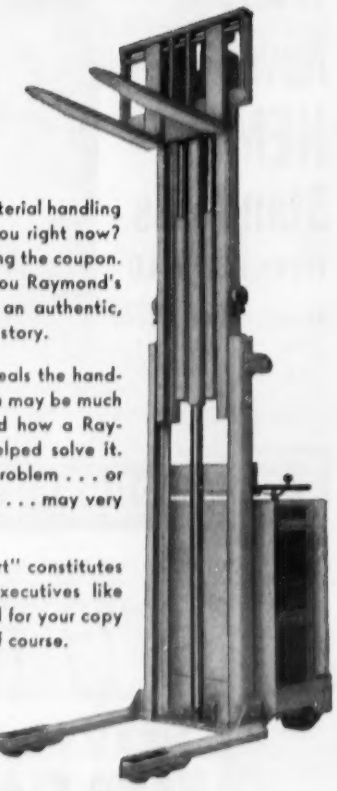
RMC *"You Can Rely On Rochester"*

ROCHESTER MANUFACTURING CO.
114 ROCKWOOD STREET — ROCHESTER 10, N. Y.

For more details circle NED-497 B7 on enclosed inquiry slip

CLIP & MAIL THIS COUPON

Before you buy another electric truck . . .



HOW HAVE OTHERS SOLVED the material handling problem which faces you right now? You'll find out by mailing the coupon. Because it will bring you Raymond's new "User's Report", an authentic, fully-illustrated case-history.

This concise report reveals the handling of a problem which may be much like your own . . . and how a Raymond Electric Truck helped solve it. The solution to your problem . . . or an idea for its solution . . . may very well be described.

Our new "User's Report" constitutes "must" reading for executives like yourself. Why not send for your copy now? No obligation, of course.

The RAYMOND CORPORATION
4119 Madison St., Greene, N.Y.

Please send me your new "User's Report" describing the handling of _____ (PRODUCT)

NAME _____ TITLE _____
COMPANY _____
STREET _____
CITY _____ STATE _____

For more details circle NED-498 B7 on enclosed inquiry slip

Today's Modern Industry Demands a Modern Thermometer

PALMER

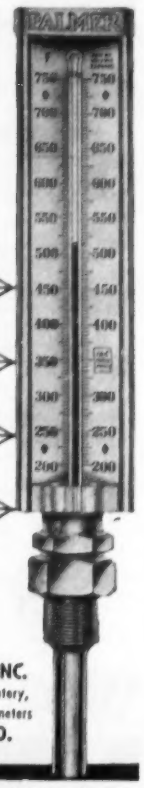
RED-READING MERCURY THERMOMETERS

Red-Reading Mercury

Extruded Brass Case

Chrome Finish

Ranges —40 to 950°F or Equivalent in °C



Write for Complete Information

Ask for Bulletin No. 35

Consult your Classified Directory

PALMER THERMOMETERS, INC.
Mfrs of Industrial Laboratory, Recording and Dial Thermometers
Cincinnati 12, O.

For more details circle NED-501 B7 on enclosed inquiry slip

FIRST WITH A COMPLETE LINE OF SAFETY SWITCHES

TO MEET THE New NEMA Standards

TYPES HD, ND, LD

at no cost premium

Write for New NEMA Standards Bulletin
Address Square D Company, 6060 Rivard St., Detroit 11, Mich.

NOW...EC&M PRODUCTS ARE A PART OF THE SQUARE D LINE

SQUARE D COMPANY

For more details circle NED-502 B7 on enclosed inquiry slip

RUGGED HEAVY-DUTY HAND CLAMPS

Knu-Vise offers rugged heavy-duty clamps, with solid bar or channel bar, and either hand or air operated, for all kinds of tough holding jobs.

In addition to their stand-up stamina for rough going, these Knu-Vise Clamps feature:

1—Easy and complete replaceability of parts
2—Hardened and ground bearing bolts
3—Minute adjustment of parts through self-locking nuts
4—Toggle Bars from C.R.S. Bars

Developments like these are typical of Lapeer engineering. More information? Write for catalog today on the models available.

Manufacturers of over 150 models of manually and air-operated clamps and pliers

KNU-VISE PRODUCTS LAPEER MANUFACTURING CO.

3062 DAVISON ROAD • LAPEER, MICHIGAN

WESTERN DIVISION: 422 Magnolia, Glendale, California • CANADIAN DIVISION: Higginson Engr., Hamilton, Ontario

For more details circle NED-503 B7 on enclosed inquiry slip

ULTRASONIC SOLDERING IRON efficiently joins aluminum and its alloys without the use of flux

Soldering of aluminum without flux by completely removing the oxide film on the metal surface is possible with the Mullard model E 7587 M ultrasonic soldering iron. The iron applies ultrasonic power in the form of silent sound waves through the heated molten solder to the surface of the aluminum or other light metal. "Cold boiling" effect called cavitation is produced within the solder to remove the oxide film, allowing wetting action and tinning to take place.

Tool has a pistol grip and a chisel-shaped or tapered copper bit. It features a built-in bit heating element and servo stability system. Use can be for fabricating aluminum products, filling blowholes in aluminum castings, bonding aluminum cables or soldering electrical or electronic assemblies. English-made soldering iron and its power unit are distributed by **Acoustica Associates Inc.**, Dept. NED, Shore Rd., Glenwood Landing, L. I., N. Y.

For more details circle NED-504 B7 on enclosed inquiry slip

POLYETHYLENE CONTAINERS wide color and size range offered

Base, cover, hinges and fastener of these one-piece polyethylene containers are molded as a unit in one operation. Interior partitions can be furnished if desired. Several basic sizes are available, or any size can be made to order. Wide range of colors, including opalescent effects, are offered, and stippled panels, lettering or special embossed designs can be specified. Use can be for packaging tools, instruments, equipment of various types and gifts. Made by **Werner Mfg. Co.**, Dept. G, 4401 First Ave., Lyons, Ill.

For more details circle NED-505 B7 on enclosed inquiry slip

SYNCHRONOUS SWITCH positions shaft and electric circuits

Precision co-ordination of shaft position with electric circuit is provided by the model 3 Rototimer, a synchronous contactor or switch for applications where the operating point is carefully set and infrequently changed. Uses include punch press control, magnetic counter actuation, shaft synchronization and register control. Operating point is adjustable in 5-degree steps by resetting the cam. Four interchangeable cams are available to vary switching functions. Contacts are rated 1 amp noninductive at 125 v ac. The 4 17/32 x 3½ x 3 9/16-in. unit is coupled to controlled equipment by a ½-in. shaft with ⅛-in. keyway. Made by **Farmer Electric Products Co.**, Dept. N, 2300 Washington St., Newton Lower Falls, Mass.

For more details circle NED-506 B7 on enclosed inquiry slip

AIR-POWERED LUBRICATOR clamps to 25-50-lb containers

Steel cover of this air-operated lubricant pump can be clamped quickly to any standard 25 to 50-lb original refinery container. Pump will develop grease pressure 50 times greater than air line pressure and will dispense all pressure-gun lubricants in any weather. Follower plate assures prime. Unit is equipped with 6-ft pressure hose, control valve with curved extension for hard-to-reach fittings and carrying handle. Made by **Lincoln Engineering Co.**, 5782 Natural Bridge Ave., St. Louis 20, Mo.

For more details circle NED-507 B7 on enclosed inquiry slip

DELIVERY OFF THE SHELF IN 64,000 COMBINATIONS

T-J Spacemaker CYLINDERS

OUTMODE ALL OTHERS...SAVE 40% SPACE

You'll never go back to tie-rod cylinders, once you apply T-J Spacemakers to your push-pull-lift jobs! Advantages in space saved, weight saved, greater strength and off-the-shelf delivery are among the dozens of Extras you get as Standard!

Now—these sensationally popular T-J Spacemaker Cylinders are available off the shelf *in sizes up to 8"*. This means as many as 64,000 different combinations of styles, bores, strokes, mountings, etc. *immediately available!* Oil pressure to 750—Air to 200 P.S.I.; Super Cushion Flexible Seals for Air... New Self-Aligning Master Oil Cushion. Hard chrome plated bodies and piston rods (Standard). Only from T-J can you get these new ingenious cushion designs! Send for bulletin SM-155-2. The Tomkins-Johnson Co., Jackson, Mich.

Member of the National Fluid Power Association

T-J TOMKINS-JOHNSON
VALVES...AIR AND HYDRAULIC CYLINDERS...CUTTERS...CLINCHERS

For more details circle NED-508 B7 on enclosed inquiry slip

ANY OVEN TEMPERATURE at the turn of a dial

with driQuik INFRA-RED INTERLOCKING OVEN SECTIONS

OVENS ANY SIZE OR SHAPE

Whether your job is low temperature metal prep or fast paint baking, your driQuick oven or heating panel or any part of it can be dialed to any temperature from 0% to 100% of rated power. One piece of equipment can do many jobs efficiently without additional installation cost.

NO BULBS OR SOCKETS TO BURN OUT. Gives even field of heating energy, free from hot or cold spots.

driQuik DIVISION DRY CLIME LAMP CORP. GREENSBURG, INDIANA

For more details circle NED-509 B7 on enclosed inquiry slip

outstanding accuracy at lowest cost!

Find out how fast, accurate and economical small milling *can be!* U.S. Burke milling machines provide outstanding quality, dependability and convenience in operation...for hundreds of dollars less than leading competitors. Investigate U. S. Burke time and money-saving performance now!

U. S. No. 1 HAND MILLING MACHINE

. . . half the cost, twice the value!

A top-quality precision production tool . . . priced so low it's actually profitable to spot it around "looking for work" that can be kept out of the milling section. Accurate, rigid, simple and adaptable. Easily equipped with air-hydraulic feeds for high production. Detailed literature on request.

THE U·S·Burke MACHINE TOOL DIVISION
2 BROTHERTON ROAD, CINCINNATI 27, OHIO

For more details circle NED-510 B7 on enclosed inquiry slip

NEW LOW COST GARLOCK MECHANICAL SEAL

The finest quality materials, design, and workmanship have been incorporated in this new low cost Garlock Mechanical Seal for ⅝" and ¾" diameter shafts. Other sizes available on quantity orders.

We invite you to compare this new inexpensive Garlock seal with those you are now using. It is designed for use on any rotating shaft of home water pumps, oil pumps, reduction units, washing machines, etc. Get all the facts, call your local Garlock Representative or write for data sheets on this new mechanical seal.

THE GARLOCK PACKING COMPANY, Palmyra, New York

For Prompt Service, contact one of our 30 sales offices and warehouses throughout the U.S. and Canada.

GARLOCK

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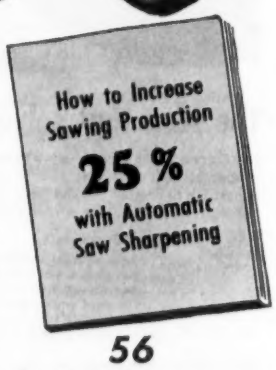
IF YOU USE SAWS GET THIS FREE BOOK

This free book is based on facts and experience from many years' use of Foley precision saw filing equipment in thousands of plants. It contains pictures and helpful data showing how firms have actually increased sawing production 25% to 40%, lengthened saw life, reduced breakage, produced better work, and have lowered maintenance costs. One firm reports an annual saving of $350. Book includes instructions illustrating how automatic sharpening can benefit you. Request Manual No. 100—no obligation.



56 helpful pages

FOLEY MANUFACTURING CO.
3323 N. E. 5TH ST. • MINNEAPOLIS 18, MINN.

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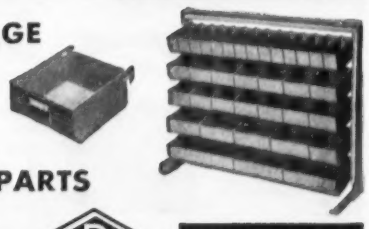
BIN UNITS BENCH or FLOOR BY Bathey

FOR STORAGE or ASSEMBLY OF SMALL PARTS



MBC BENCH MODELS

FIVE SIZES *of removable* **BIN BOXES**

Visible parts handling saves time and money!

FLOOR MODELS

Write for Catalog

DEALERS IN PRINCIPAL CITIES

B-4 STANDARDIZED BY AMERICAS LEADING MANUFACTURERS

BATHEY MFG. CO.
100 S. MILL STREET PLYMOUTH, MICH.

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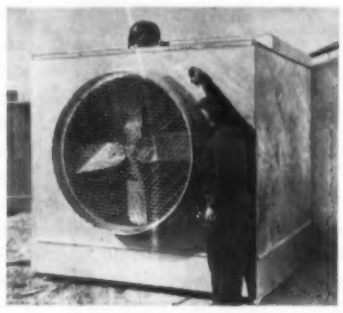
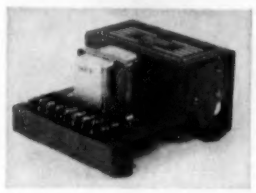
COOLING TOWER
capacities range from 2 to 100 tons



Suited for air conditioning and refrigeration installations as well as for engine jacket, compressor and process cooling, series CF packaged cooling towers have side-suspended decking for easy cleaning. This horizontal induced draft unit has propeller fan and stainless steel shaft. Capacities range from 2 to 100 tons. Components are hot-dip galvanized after fabrication to withstand weather and corrosion. Made by **Dover Mfg. Co.**, Dept. 200, 3117 Weatherford Ave., Independence, Mo.

▲ For more details circle NED-514 B7 on enclosed inquiry slip ▲

VOLTAGE/FREQUENCY MONITOR
can actuate aural or visual signal



Fail-safe voltage and/or frequency monitor, adjusted to military and commercial specifications or adaptable to special requirements, incorporates a Regohm regulator. A typical over/under unit could be used to actuate an aural or visual warning signal when the line is 5 per cent off nominal voltage or frequency and then to turn off or disconnect equipment at the 10-per cent limit. "Percent off" points are adjustable and monitoring functions of any degree of complexity can be performed. Made by **Electric Regulator Corp.**, Dept. N, 314 Pearl St., Norwalk, Conn.

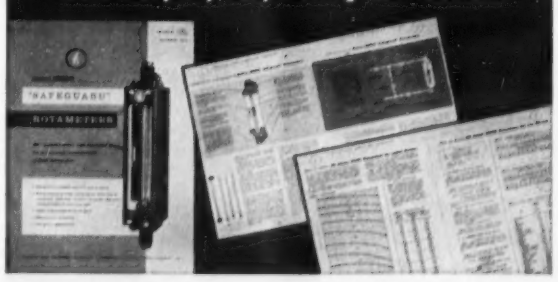
▲ For more details circle NED-515 B7 on enclosed inquiry slip ▲

DIRECT-DRIVE FAN MOTORS
for 1 to 5-ton air conditioners

Models S-60-D, S-13-H and S-16-H reduced-depth direct-drive fan motors operate at 950, 775 and 625 rpm, respectively for quiet, vibration-free performance in remote condensers or central air conditioning systems. Designed for vertical or horizontal operation, motors have aluminum pressure blades and single-point mounting components, thermal protection, central lubrication and nylon thrust bearings. They are rated 1/12, 1/8 and 1/3-hp respectively, for use on 1 to 5-ton units. Input is 230 v. Axial lengths are 4, 4½ and 5 in. Made by **Electric Motors & Specialties, Inc.**, 107 King St., Garrett, Ind.

▲ For more details circle NED-516 B7 on enclosed inquiry slip ▲

NEW "SAFEGUARD" ROTAMETER BULLETIN
Gives Step-by-Step Sizing Instructions



Immediately available on request, new SK *Bulletin 18RG* provides valuable information for anyone who must measure fluid rate-of-flow accurately and safely. The bulletin describes SK's line of "Safeguard" Rotameters—includes complete data on application, construction, materials available, installation, and operation.

User benefits are recorded in detail. *Of great value are the simplified, step-by-step instructions for sizing and selecting Rotameters* for liquid and gas rate-of-flow measurement. Capacity tables are included.

For a copy of Bulletin 18RG, write to us at the address below.

Schutte and Koerting COMPANY
MANUFACTURING ENGINEERS
2227 STATE ROAD, CORNWELLS HEIGHTS, BUCKS COUNTY, PA.

Jet Apparatus: Ask for Condensed Bulletin J-1.	Rotameters & Flow Indicators: Ask for Condensed Bulletin 18-R2.	Valves: Ask for Condensed Bulletin V-1.	Heat Transfer Apparatus: Ask for Condensed Bulletin HT-1.	Gear Pumps: Ask for Bulletin 17-A.

▲ For more details circle NED-517 B7 on enclosed inquiry slip ▲

Without the BECK AUTOMATIC ROLL SHEET CUTTER

YOU may be losing money!

Your cutting from rolls to sheets, for instance, is probably slower than it should be — and material waste higher than it ought to be. As for your inventory: you don't need to load up with vari-sized sheets. With this machine you stock rolls and cut the sheet sizes you need. Sounds like an expensive machine? It isn't. In both price and design it's adaptable to a variety of needs, including yours — whether you cut paper, board, foil or film. Just send us a brief letter and we'll give you a frank appraisal of the Beck Machine's potential for you.

CHARLES BECK MACHINE CORPORATION
30 CHURCH ROAD BECK KING OF PRUSSIA, PA.

Automatic Roll Sheet Cutter • Razor Blade Slitter and Rewinder • Shear Cut Slitter • Sheeter-Printer for sample books • Engraved Roll Printer

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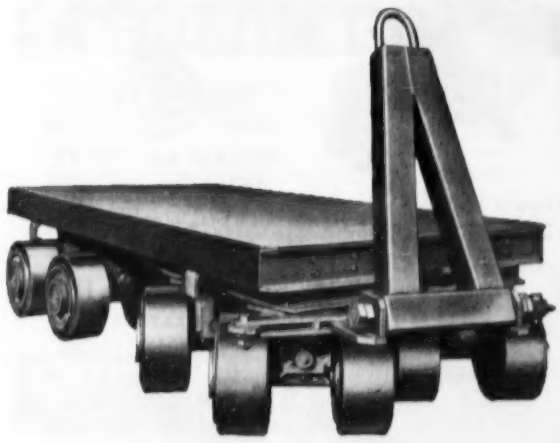
Handle heavy loads safely



Phillips Heavy Duty Trailers

Phillips heavy-duty trailers are designed to safely and economically haul hot metal, ingots, slabs, plate, coils, bar stock, pipe, scrap and other products requiring in-plant handling.

Built in load-handling capacities from 6000 to 250,000 lbs., the Phillips trailers feature such advantages as front or front and rear axle fifth wheels for better steering, articulated axles, synchronized steering, Timken wheel bearings, solid or pneumatic tires, and 4, 8, or 16-wheel models.

They can be used singly or in tandem, the length of trains being limited only by the tow tractor. For good load stability, good roadability, safety, peak operating performance, and low initial cost with a minimum of maintenance, specify Phillips trailers.

SALEM-BROSIUS, INC.
16 Arch Street • Carnegie, Pa.

PHILLIPS MATERIALS-HANDLING EQUIPMENT

Manufacturers Since 1863

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The little giant that does so much

BOLENS

RIDE-a-matic
TRACTOR

3.6 hp and 6.6 hp engines

- ☑ Haul loads
- ☑ Mow lawns
- ☑ Cut weeds
- ☑ Roll turf
- ☑ Grade land
- ☑ Plow and cultivate
- ☑ Plow or throw snow
- ☑ Materials handling

The job list for the RIDE-a-matic is constantly growing. What can the RIDE-a-matic do for you?

Send Postcard for Catalog
BOLENS PRODUCTS DIVISION
Food Machinery & Chemical Corp.
Port Washington 10, Wisconsin

▲ For more details circle NED-520 B7 on enclosed inquiry slip ▲

HANDLING BULK MATERIALS?

take it up a Flo-Tube,

the spiral conveyor of dependable service. Used on incline or horizontally.

Mechanically handles materials from grain size to lump . . . sand, rice, seed, pellets, flakes, steel chips, wood waste, coal, etc.

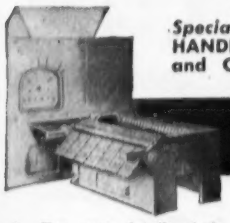
OR LIQUIDS?

WAGENER PUMPS
SIMPLEX DUPLEX

STEAM or POWER models for any need

TYPICAL MATERIALS PUMPED:
ACIDS, ALCOHOLS, BEER & POTATO MASH, DYES, GLUE, OIL (any kind), ASPHALT, BRINE, MILK, MOLASSES, SOAP, SEWAGE, WATER, TAR, GROUT

MADE and GUARANTEED BY THE
***Specialists in* Automatic Coal FIRING, HANDLING and CONTROL Equipment and CANTON INCINERATORS**



CANTON STOKER CORP. CANTON STOKERS

102 ANDREW PL., CANTON, OHIO
PHONE GLendale 3-9133

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NEW from ELGIN

SOLID CARBIDE DRILLS and REAMERS

—precision machine ground. —complete size range in stock, specials available. —quality proved by Elgin for accuracy and long life.

WRITE TODAY for details on this latest addition to Elgin's "Golden Circle" Rotary Tool Line of solid carbide burs and end mills.

ABRASIVES DIVISION, DEPT. I
ELGIN NATIONAL WATCH COMPANY
Elgin, Illinois

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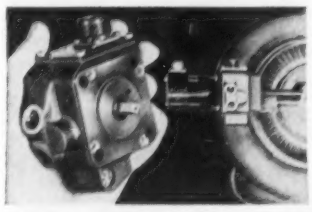
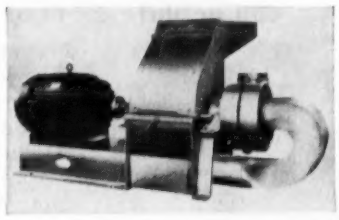
SPEED GOVERNOR & TACHOMETER regulates speed in motor systems



This speed governor and tachometer switch can regulate speed of auxiliary power units and turbo pump sets, sense overspeed for emergency engine control or sequence, and control remotely operated engines. Direct through drive makes it possible to mount tachometer on the governor. It can be preset to cut in at particular speed. Total increase of 7 per cent of set speed is required to reach full cut in. Unit has been used for direct throttling of propellant to gas generator, for throttling JP-4 on small engines and as a pneumatic governor. Made by **Lee Co.**, Dept. N, Box 418, Westbrook, Conn.

▲ For more details circle NED-523 B7 on enclosed inquiry slip ▲

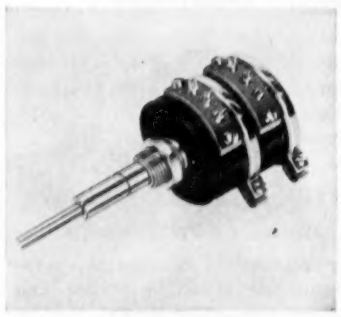
HAMMER MILL features 20-in. feed opening



Added to line of series 8 heavy duty hammer mills is model 68 with 20-in. feed opening and range of 75 to 100 hp at 3600 rpm. Screen can be instantly inserted or removed safely while mill is running. Hand guards are not required since there is no exposure to whirling hammers. Furnished with direct or belt drive, machine has the Schutte adjustable hammer as standard. Ten working surfaces assure long wearing life and low hammer cost. Made by **Schutte Pulverizer Co.**, Dept. N, 878 Bailey Ave., Buffalo 6, N. Y.

▲ For more details circle NED-524 B7 on enclosed inquiry slip ▲

POTENTIOMETERS tandem units have concentric shafts



Concentric shaft design of precision potentiometers permits two units to be single-hole mounted for control by a dual knob. Tandem units have standard 1/8 and 1/4-in. shafts. Assembly is mounted by a 3/8-in. threaded bushing or by a servo-style mounting. Various resistance ranges are available, with stops or for continuous rotation of either or both elements. Made by **Waters Mfg., Inc.**, Dept. NED, Box 368, South Sudbury, Mass.

▲ For more details circle NED-525 B7 on enclosed inquiry slip ▲

grinds **TWO** parallel surfaces in **ONE** operation

NEW **GARDNER** *Precision Disc Grinder*

Model 2H30 Double Spindle Grinder with improved stability for greater accuracy

Send for your copy of new catalog today.

GARDNER precision disc grinders
MACHINE COMPANY
416 Gardner Street
Beloit, Wisconsin

▲ For more details circle NED-526 B7 on enclosed inquiry slip ▲

The Standard of Excellence!

■ For design, utility, and service you can't beat VACO. The Comfordome handle and oil tempered chrome vanadium steel blade assure maximum convenience at low cost. The VACO name and unconditional guarantee assure finest workmanship.

Look for the VACO Vari-Board! Next time you need a screw driver, fit the driver to the screw by making your selection from a VACO Vari-Board. Your choice of up to 120 screw drivers at a glance!

NEW! VACO PLIERS! Now available in all popular styles and sizes. Made to VACO quality specifications.

VACO PRODUCTS COMPANY, 317 E. Ontario St., Chicago 11, Ill.
In Canada: Vaco-Lynn Products, Ltd., Montreal 1, Quebec

▲ For more details circle NED-527 B7 on enclosed inquiry slip ▲

The idea that solved 1000 "headaches"

The famous SBS-60 upside-down hand picture first appeared about a year ago. It dramatically illustrates how SBS-60 Cream Deodorant Soap is almost impossible to waste . . . and why it has solved literally thousands of soap "headaches" in hundreds of nationally known organizations.

What is your soap "headache":

- . . . . soap powder spilled all over your washrooms?
- . . . . bar soap wastefully dissolving on the shower room floor?
- . . . . liquid soap dispensers either dripping or all clogged up?
- . . . . constant work keeping dispensers filled and in order?
- . . . . complaints about your soap from both men and women?
- . . . . whatever your soap "headache", SBS-60 can help.

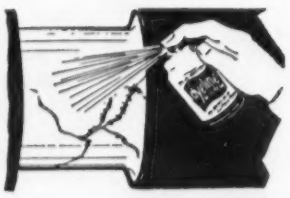
Write and we'll send complete information that tells you just how SBS-60 Cream Deodorant Soap "cures" most of today's soap "headaches". *Write us today!* We'll rush the details to you.

Write Dept. 37-B6

SBS sugar beet products co. *the washword of industry*
saginaw, mich. • los angeles, calif. • toronto, canada

▲ For more details circle NED-528 B7 on enclosed inquiry slip ▲

another ZIP SPRAY... DYELINE INSPECTION PROCESS



Dyeline—a new two-stage inspection process for all non-porous materials. No skilled operator or expensive equipment necessary! Just spray Dyeline, follow with Dyeline Detector, and the exact location, type and extent of defects appear sharply and clearly on an opaque background!

No solvent required—water removes Dyeline immediately.

Dyeline — in Aerosol or standard containers at surprisingly low cost.

ALSO:

ZIP SPEED LACQUER — Identifies all materials with a quick color-coding process.

ZIP RUST STOPPER #1 Protects metal parts for storage.

ZIP RUST STOPPER #2 Protects parts left in machinery for further processing; removes fingerprints.

ZIP PATTERN LAYOUT FLUID—Shows up scribed patterns strongly.

ZIP STENCIL INK—Quick drying—excellent on cartons and metals.

ZIP BELT LUBE—Prolongs belt life; promotes safety and speed.

ZIP MOLD RELEASE—Releases all parts of injection plastic moldings quickly and completely.

WRITE FOR DETAILS

ZACO LABORATORIES
1360 W. 9th St. • Cleveland 13, Ohio

▲ For more details circle NED-529 B7 on enclosed inquiry slip ▲

SAVE TIME—MONEY
PULLS OIL SEALS, BEARING RACES BRONZE BUSHINGS

The new PATTON Puller does the job quickly and easily without damage to parts and castings. In addition, oil seals, bearing races and dead-end bronze bushings are removed in a fraction of the time formerly required.

Originally designed for the Armed Forces, the PATTON Puller is now used in machine shops and maintenance and repair shops wherever machinery is repaired. PATTON Pullers save costly man hours and prevent unnecessary damage to component parts. Special sizes can be custom-made for specific requirements. Write for details.

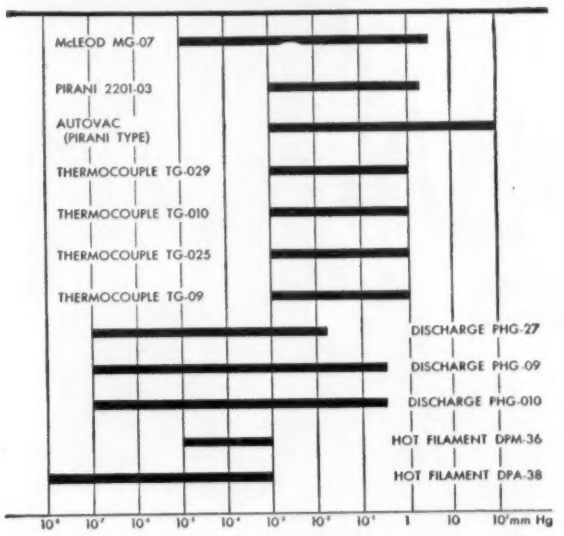
Certain areas are available for qualified distributors.

PATTON NO.	AIR FOR. STOCK NO.	HEAD SIZE
PM-8001 (Set)	7900-573278	Comp. Set 7/16" to 1 7/16"
PM-8051 (Set)	7900-573279	Comp. Set 1 17/32" to 4 1/16"
PM-8001-1 assy.	7900-573265-5	7/16" to 17/32"
PM-8001-2 assy.	7900-573265-75	9/16" to 23/32"
PM-8001-3 assy.	7900-573266	13/16" to 29/32"
PM-8001-4 assy.	7900-573266-25	21/32" to 1 7/16"
PM-8001-5 assy.	7900-573266-5	1 5/32" to 1 1/4"
PM-8001-6 assy.	7900-573266-75	1 11/32" to 1 7/16"
PM-8051-3 assy.	7900-573267-5	1 25/32" to 2"

Sizes from 3/8" to 4 1/2" available. Pat. No. 2380068 and Pat. Pend.

PATTON
MANUFACTURING COMPANY, INC.
1802 West Pleasant St., Springfield, Ohio

For more details circle NED-530 B7 on enclosed inquiry slip



10^2 to 10^{-8} mm Hg . . .

12 CEC vacuum gauges that measure in this range

For quick, accurate readings in a range to match your high-vacuum work, select from the complete line offered by CEC in these twelve gauges:

Absolute Manometer
MG-07—Three scales

Thermal Gauges
Pirani 2201-03—(See caption below)
Autovac—Automatic range switching. One to four stations.
TG-029—Printed circuit offers economy. One station.
TG-010—External circuit control. One station.
TG-025—Battery operated. One station.
TG-09—One to six stations.

Ionization Gauges
PHG-27—Printed circuit offers economy. Automatic voltage regulation. Three scales.
PHG-09—Four scales. One station. (Also available with two to six stations.)
PHG-010—Same as PHG-09, but with external circuit control.
DPM-36—Has tube degassing circuit.
DPA-38—Automatic filament protection. Tube degassing circuit.

A new Pirani Gauge. Continuous, direct readings over entire range, 1 to 2000 microns. Single station and one-to-four station models. Automatic voltage regulation. High sensitivity with greatly reduced zero drift. Serves as leak detector up to 10mm Hg.

Write for descriptive literature with performance charts and specifications.

Consolidated Electrodynamics
Rochester Division, Rochester 3, N. Y.
formerly Consolidated Vacuum

NATIONWIDE COMPANY-OWNED SALES AND SERVICE OFFICES

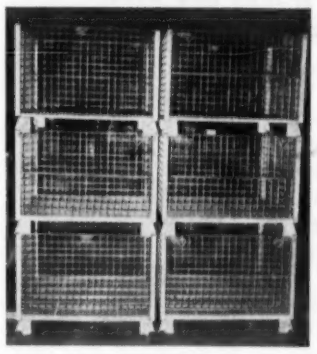
For more details circle NED-531 B7 on enclosed inquiry slip

HAND METAL NOTCHER
cuts 90-degree notches 1 in. deep

Slight hook shape of blade on No. 241 hand metal notcher is for shearing action, easy cutting and accurately locating the notch. The 7-lb tool cuts 90-degree notches up to 1 in. deep in up to 16-gage mild steel or equivalent. Double linkage action multiplies force on the handles. Die and blade of the 21-in. tool are replaceable. Tool can also be used for other notching operations on corners, flanges, folded-up edges, narrow channels and decorative moldings. Made by **Whitney Metal Tool Co.**, 400 Forbes St., Rockford, Ill.

For more details circle NED-532 B7 on enclosed inquiry slip

WIRE CONTAINERS
withstand rough fork truck handling



Easy stacking, visual inventory and built-in ability to withstand rough usage by fork trucks are features of heavy duty Stor-Stak wire containers. Heavy structural members at corners and deck perimeter prevent handling damage. Capacities range up to 6000 lb. Rigid and drop side or end models are available. Body is made of 0.2625-in. wires welded together on 2-in. centers. Made by **Summit Products Co.**, Dept. NE, 146 S. Beeson Ave., Uniontown, Pa.

For more details circle NED-533 B7 on enclosed inquiry slip

WIRE CONNECTORS
approved for 600 v use

Approval for 600-v general use or 1000-v use when enclosed in fixtures has been granted to Hi-4 and Hi-6 screw-on type Bakelite wire connectors by Underwriters' Laboratories. They are listed as pressure cable connectors for general use in all types of branch circuit wiring in all common wire combinations. Made by **Holub Industries, Inc.**, 411 DeKalb Ave., Sycamore, Ill.

For more details circle NED-534 B7 on enclosed inquiry slip

Facts About FLUID DRIVES

HYDRO-SHEAVE® eliminates solid connection between power source and driven equipment.

- Smooths starting shocks
- Absorbs shock loads
- Prevents motor stalls
- Levels current load
- Protects motors and machinery
- Slips on shaft easily
- Applies to shaft of motor or engine—capacities 3/4 to 50 hp

TWIN DISC
Fluid Couplings

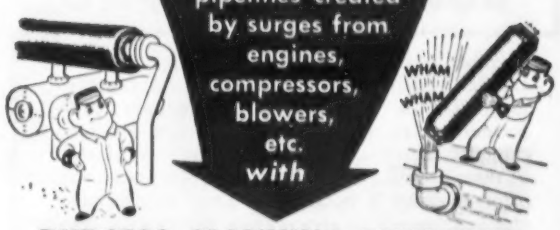
TWIN DISC CLUTCH CO. • Racine, Wisconsin

For more details circle NED-535 B7 on enclosed inquiry slip

STOP

NOISE from air, steam and gases discharged to atmosphere

PULSATION in pipelines created by surges from engines, compressors, blowers, etc. *with*



BURGESS-MANNING SNUBBERS

They are engineered to effectively correct your specific noise and pulsation problems. You will profit through better neighbor and employee relations and avoid compensation claims.

Write for full information.

BURGESS-MANNING COMPANY
Sound Engineering
755 East Park Avenue, Libertyville, Illinois
Dallas, Texas

For more details circle NED-536 B7 on enclosed inquiry slip

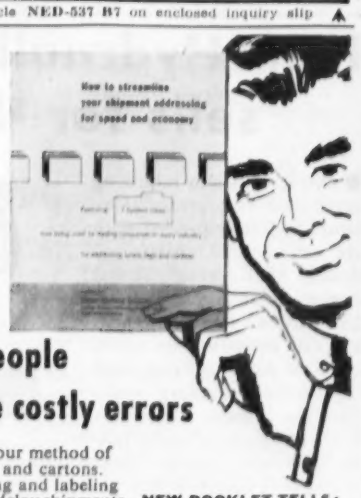
How quality Johnson Bearings save money for you

The cost of a single bronze bearing is but a minute fraction of the cost of a shut-down on your production lines due to the failure of a single bearing. That's why smart bearing buyers always order guaranteed quality Johnson cast bronze bearings.

Johnson bearings are cast in Johnson's famous alloy #72, which many millions of machine hours have proved best for general purpose use. More than 900 standard sizes in 200 different ID-OD combinations are available from stock. The ID range is 1/4" to 4 1/2"—OD range 3/8" to 5". Lengths range from 5/8" to 9 3/4". The Johnson Bearing Catalog lists all stock items—gives data on altering to provide oil grooves, slots and holes. Ask your distributor or write Johnson Bronze Company, 580 S. Mill Street, New Castle, Pa.

Johnson Bearings

For more details circle NED-537 B7 on enclosed inquiry slip



You can speed up your shipments with fewer people and eliminate costly errors

HOW? By improving your method of addressing labels, tags and cartons. Old-fashioned stenciling and labeling methods can seriously delay shipments as well as waste precious time and labor.

FIRST STEP—Send today for your free copy of this new comprehensive booklet that describes the latest systems for addressing labels, tags and cartons.

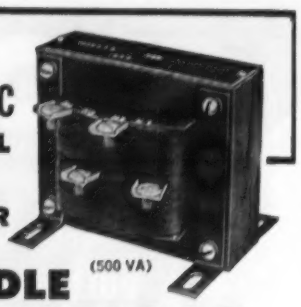
Your free copy is waiting
Send for it today!

NEW BOOKLET TELLS:
- How to evaluate efficiency of shipment addressing operation
- Modern systems for addressing labels and tags
- The latest direct-to-carton stenciling systems
- Integrated shipment addressing, the newest trend in order-processing

Weber
WEBER MARKING SYSTEMS
Div. of Weber Addressing Machine Co., Inc.
Dept. 21-8
Mount Prospect, Illinois
SALES AND SERVICE IN ALL PRINCIPAL CITIES

For more details circle NED-538 B7 on enclosed inquiry slip

THIS ACME ELECTRIC MACHINE TOOL CONTROL TRANSFORMER



(500 VA)

CAN HANDLE 900% OVERLOAD

If machine tool control equipment requires constant maintenance, eliminate the cause of most trouble by replacing inadequate transformers with Acme Electric high overload capacity designs. The exceptional regulation of these transformers exceeds NEMA standards, often making it possible to use a smaller size, and get better performance than with conventional designs. *Write for Bulletin MTC 307.*

ACME ELECTRIC CORPORATION
302 WATER ST. CUBA, NEW YORK

Acme ACME Electric TRANSFORMERS

For more details circle NED-539 B7 on enclosed inquiry slip

YALE

"integrated design"

GAS TRUCKS

Yale Gas Trucks with capacities from 1,000 to 10,000 lbs. now include premium engineering advances as standard features:

- Self-adjusting hydraulic wheel brakes of increased capacity for fast, smooth stops.
- Side-thrust rollers to reduce stress and compensate for off-center loading.
- Yale Torque Transmission for instant power and accurate inching control. Also available with Fluid Coupling or standard transmission.

Write for booklet 5101D. The Yale & Towne Mfg. Co., Philadelphia 15, Pa. Dept. 372A.

YALE* INDUSTRIAL LIFT TRUCKS AND HOISTS
*REG. U. S. PAT. OFF.

For more details circle NED-540 B7 on enclosed inquiry slip

New Hydraulic Press sells for $395

New hydraulic Multipress for high speed manual or automatic operation.

● Production jobs requiring controlled ram pressure are simplified and speeded with the new 1-ton Denison hydraulic Multipress*. A fast operating ram giving up to 150 strokes a minute permits efficient operation on many types of work using manual or automatic loading methods. The press is completely self contained and easily portable anywhere in the shop. The press controls are designed to permit completely automated operation with other production equipment. Controls are also interlocked requiring activation of two switches for safety to the operator. Price is only $395.00 F.O.B. Factory. ***Immediate delivery subject to prior sale.***

DENISON ENGINEERING DIVISION
American Brake Shoe Co.
1192 Dublin Road, Columbus 16, Ohio

HYDRAULIC PRESSES
PUMPS • MOTORS • CONTROLS

DENISON HydrOILics

For more details circle NED-541 B7 on enclosed inquiry slip

SMALL SPRAY BOOTH
24 x 28-in. unit has exhaust fan

Quiet running, totally enclosed, ball bearing equipped 10-in. exhaust fan with self-closing butterfly damper is feature of the No. 2019 Spray booth. It occupies a floor space of 24 x 28 in., is 60 in. high and has a glass wool filter to catch the spray mist and residue. Booth can be used for air-brush, glaze spraying, flocking and other small spray operations. Accessory air filter and regulator is available. Made by **Craftools, Inc.,** Dept. NED, 401 Broadway, New York 13, N. Y.

For more details circle NED-542 B7 on enclosed inquiry slip

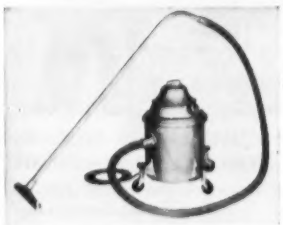
SPRING-PRESSURE CARTRIDGE
preassembled stacks are used to absorb shock or exert force

Compact energy "cartridge" of preassembled stacks of multiple Belleville spring washers provide one-piece component for incorporation in the final machine. Held together by pins or rivets passing through the washers at or near their neutral axis, the stacks are easily installed, following assembly in jigs or by automatic machinery. The cartridge can be preloaded so that only a slight additional compression force is necessary for assembly. The three-point (or more) loading prevents buckling of the stacks.

Use can be as a shock absorber in vibration isolation mounts, to exert large amounts of force within a limited range of deflection, to exert force at a low rate, and to maintain reasonably constant pressure in spite of expansion due to temperature variations. Washers can be stacked in series to obtain maximum deflection, or in parallel to increase the load. Made by **Associated Spring Corp.,** 100 Wallace St., Bristol, Conn.

For more details circle NED-543 B7 on enclosed inquiry slip

VACUUM CLEANER
for maintenance and boiler cleanout



Turbo-Vac vacuum cleaner and blower handles maintenance cleaning of rugs, walls and wet and dry bare floors, as well as major boiler cleanout operations. Model 45 has a removable head with 1-hp by-pass motor and an 18-gage steel, plastisol lined tank with 2/3-bushel or 5-gal capacity. Unit has an air volume of 135 cfm, filter with an area of 400 sq in. and a disposable paper filter with 850 sq in. area. Four ball bearing swivel casters are standard. Head can be removed for use with the Kent Drum-Seal which fits on an ordinary boiler room drum or container for boiler cleaning. Made by **Kent Co.,** 827 Canal St., Rome, N. Y.

For more details circle NED-544 B7 on enclosed inquiry slip

SELF-ALIGNING BUSHING
heavy duty ball and socket type

SAE52100 steel, through-hardened to 60-63 Rockwell C, is used in line of heavy duty, ball and socket, self-aligning bushings. The outer race is fractured axially to permit insertion of the ball, and the unit is kept integral with a snap ring that does not have to be removed for mounting. All surfaces are ground and coated with molybdenum disulphide. Primary applications are for oscillating devices. Wide range of models is available with radial capacities from 24,150 to 2,030,000 lb and thrust capacities from 9670 to 812,000 lb. Made by **Roller Bearing Co. of America,** Sullivan Way at W. Trenton Station, West Trenton, N. J.

For more details circle NED-545 B7 on enclosed inquiry slip

THIS CLAMP HAS A MIND OF ITS OWN!

Wilton's new Rapid Titan® is the fool-proof C-Clamp with both continuous and rapid action. Wilton's patented nut allows the spindle to engage the screw for tightening action—and disengage for rapid action—AUTOMATICALLY. No buttons—no springs—no triggers! Wear-proof steel nut; hi-tensile ductile alloy body; full length, precision cut, spatter-proof Acme screw. Of course, Rapid Titan C-Clamp has the famous UNCONDITIONAL 3-YEAR GUARANTEE BY WILTON!

ATTACH THIS AD TO YOUR LETTERHEAD AND MAIL TO US FOR A FREE 10 DAY TRIAL OR FREE LITERATURE!

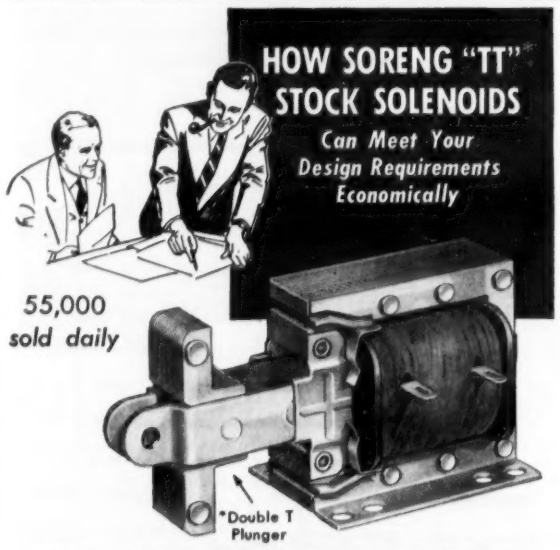
WILTON TOOL MFG. CO., INC.
SCHILLER PARK, ILLINOIS

NED-2

Sold by Leading Distributors the World Over

For more details circle NED-546 B7 on enclosed inquiry slip

HOW SORENG "TT" STOCK SOLENOIDS *Can Meet Your Design Requirements Economically*



All the exclusive custom features that have made Soreng a-c solenoids the most widely used in the world are embodied in the design of our stock line. One of our four basic types will probably fit your application . . . at the same time, you benefit from production run prices made possible through standardization.

For complete information write for Bulletin CF-124. It contains drawings, power curves, applications and other technical data.

CONTROLS COMPANY OF AMERICA
SORENG DIVISION
9577 Soreng Avenue • Schiller Park, Ill.

For more details circle NED-547 B7 on enclosed inquiry slip

HARDNESS TESTER

portable and precise!

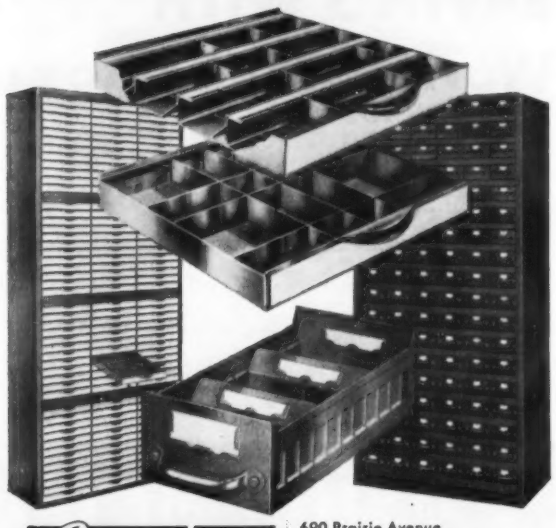
A Riehle sales engineer will *prove* — in your own plant, on certified calibrated specimens — that a Riehle portable gives Rockwell readings of "bench tester" accuracy. Make tests on your own materials too. See how this portable saves carrying unwieldy pieces to a bench for testing.

FREE BULLETIN . . . WRITE DEPT. NED-257

Riehle TESTING MACHINES
A DIVISION OF
American Machine and Metals, Inc.
EAST MOLINE, ILL.

For more details circle NED-548 B7 on enclosed inquiry slip

up to 6,184 Drawer Compartments in only 3 sq. ft. of floor space!



Equipto
690 Prairie Avenue
Aurora, Illinois
Write for free catalog No. 202

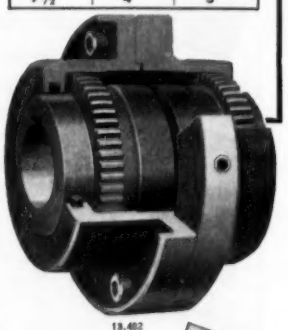
For more details circle NED-549 B7 on enclosed inquiry slip

Now you can choose a smaller, lighter, lower-cost coupling

New LINK-BELT Geared Flexible Couplings have greater bore capacity than other makes

Approx. outside dia. (in.)	Max. bore of Link-Belt coupling (in.)	Largest bore available in most leading makes (in.)
4-9/16	1 1/2	1 3/8
6	2 1/8	1 1/2
7	2 3/4	2
8 3/8	3 1/2	2 1/2
9 1/2	4	3

With no sacrifice of load capacity, the new Link-Belt Geared Flexible Coupling is designed to accommodate a larger shaft for a given outside diameter. That means you can often apply it where radial clearances are too close for other makes. What's more, the Link-Belt design provides for parallel and angular misalignment with minimum backlash. Get all the facts from your Link-Belt sales office or distributor. Or write for Folder 2375 to Link-Belt Company, 220 S. Belmont Ave., Indianapolis 6, Ind.



LINK-BELT
GEARED FLEXIBLE COUPLINGS

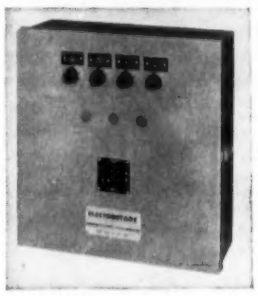
For more details circle NED-550 B7 on enclosed inquiry slip

THREE-COLOR IMPRINTER
hand roll unit weighs 3½ oz

Perfect multicolor impressions of up to three lines can be imprinted on any porous surface with the Roll Boy marking device. This roll-type device fits palm of hand and weighs only 3½ oz. It employs a suspended roll printer mounted in a plastic case; an extra deep rubber die; and special color inks packed in unbreakable dispensers. Unit is most practical for imprinting catalogs, advertising folders, letterheads and envelopes. Over 1000 impressions can be made before reinking. Made by **Force Western, Inc.,** Dept. DW, 216 W. Jackson Blvd., Chicago 6, Ill.

For more details circle NED-552 B7 on enclosed inquiry slip

DIESEL ENGINE CONTROL
provides automatic start and stop

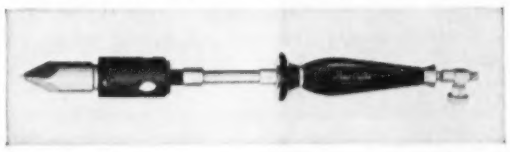


Operating on 12, 24 and 32 v, the heavy duty Electro-start diesel engine control provides automatic start and stop and protective shut down on any engine equipped for storage battery starting. Control will operate from any type of remote pilot switch and is available for five-shot (interrupted cycle) or one-shot (single cycle) cranking with adjustable crank periods. Protective features of both control types include overcranking, overspeed, high water temperature and low oil pressure. Provision is made for manual, automatic, test and off positions on the control panel. Made by **Lake Shore Electric Corp.,** 510 Willis Ave., Bedford, O.

For more details circle NED-553 B7 on enclosed inquiry slip

SOLDERING IRON
acetylene unit heats in 2 minutes

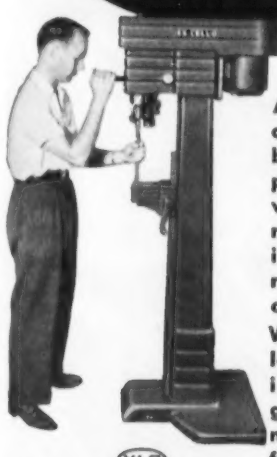
Sheet metal, electrical, plumbing and maintenance soldering jobs can be performed readily with the Prest-O-Lite 406 medium soldering iron. This air-



acetylene unit heats to working temperature in under 2 minutes. Needle valve at rear of heat-insulated handle makes possible precise flame adjustment. Pointed and chisel-edge copper heads are interchangeable. Made by **Linde Air Products Co.,** Room 2840N, 420 Lexington Ave., New York 17, N. Y.

For more details circle NED-554 B7 on enclosed inquiry slip

PRECISION LAPPED CENTERS REDUCE YOUR COSTS



A quick, easy center lapping operation on a precision-built Ex-Cell-O Center Lapping Machine prepares your work for dimensional accuracy between centers—insures centers that are round, in line and have the correct angles.

When parts are center lapped, subsequent machining is more accurate; grinding rejections are minimized; and selective fitting time is abolished. That's why an Ex-Cell-O Center Lapping Machine will pay for itself quickly in your shop.

Contact your Ex-Cell-O representative or write for center lapping bulletin.

56-8

EX-CELL-O CORPORATION
DETROIT 32, MICHIGAN

For more details circle NED-555 B7 on enclosed inquiry slip

today's most "able" HAND TYPE CLEANER by IDEAL

• VACUUMS
• BLOWS • SPRAYS
• DRIES*

HEAVY DUTY MODEL. Medium and Light Duty models also available.

Capable . . . Delivers efficient, economical, all-around service — whether you use it as a vacuum, blower, sprayer or drier*. Cast aluminum housing, streamlined and light in weight, makes possible long, continuous use without operator fatigue.

*Heater Nozzle available for Light Duty Model only.

Durable . . . Outlives lesser cleaners because it is ruggedly built to withstand the roughest industrial use. Heavy Duty 1½ H.P. motor, air-cooled for extra long life, blows at a velocity of 26,500 feet per minute.

Adaptable . . . Economically converts to Tank Type cleaner in less than a minute. Choose from either of two Conversion Packs:

1. TANK CONVERSION PACK

Multiply the usefulness of IDEAL'S Heavy and Medium Duty Hand Type Cleaners by converting to a powerful, all-purpose STANDARD Cleaner. Conversion Pack consists of wheel-mounted 12-gallon steel tank and large dust-tight bag.

2. 55-GALLON DRUM CONVERSION PACK

For IDEAL'S Heavy Duty Hand Type Cleaner. A Conversion Pack consisting of (1) cast aluminum cover and (2) dust bag; and your own 55-gallon drum, gives you a "king-size" industrial tank type cleaner. Four-wheel dolly optional.

Sold Through America's Leading Distributors
In Canada: Irving Smith, Ltd., Montreal

IDEAL INDUSTRIES, Inc.
1032-B Park Avenue, Sycamore, Illinois
Please send me full catalog data on IDEAL'S Hand Type Cleaners and Conversion Packs.

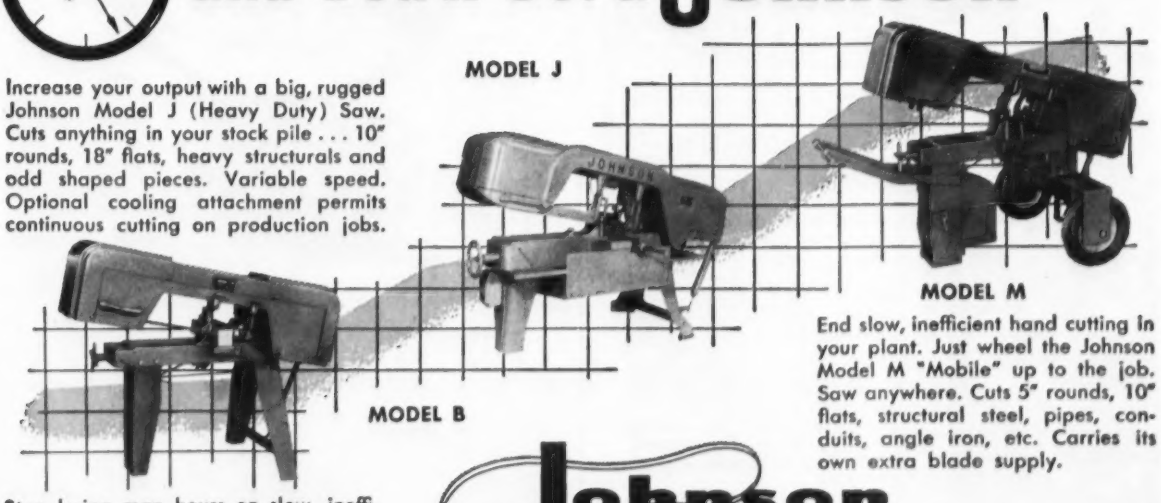
Name_____
Company_____
Address_____
City_____ Zone____ State____

For more details circle NED-556 B7 on enclosed inquiry slip

Time Study your Metal Cutting... and You'll Get a Johnson

MODEL J

Increase your output with a big, rugged Johnson Model J (Heavy Duty) Saw. Cuts anything in your stock pile . . . 10" rounds, 18" flats, heavy structurals and odd shaped pieces. Variable speed. Optional cooling attachment permits continuous cutting on production jobs.



MODEL M

End slow, inefficient hand cutting in your plant. Just wheel the Johnson Model M "Mobile" up to the job. Saw anywhere. Cuts 5" rounds, 10" flats, structural steel, pipes, conduits, angle iron, etc. Carries its own extra blade supply.

MODEL B

Stop losing man hours on slow, inefficient metal cutting machines. Specify a Johnson Model B (wet or dry) Saw for top production. Variable speed. Saws 5" rounds, 10" flats, odd and irregular shapes too. Can be caster equipped for portability.

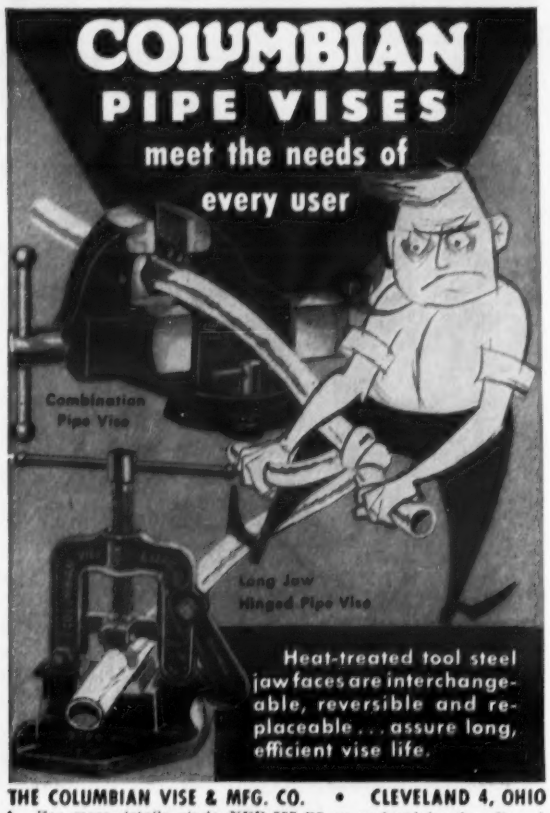
Johnson MANUFACTURING CORPORATION
Barnes & Taylor Sts. • Albion, Michigan

Eastern Distributor
R. J. R. KELLY CO.
Hale Bldg., 519 Main St.
East Orange, N. J.

Mid-Western Distributor
W. G. LUNDMARK
75 N. Broadway
Des Plaines, Illinois

Western Distributor
HASTING DISTRIBUTORS
1605 Solano Avenue
Berkeley, California

For more details circle NED-551 B7 on enclosed inquiry slip

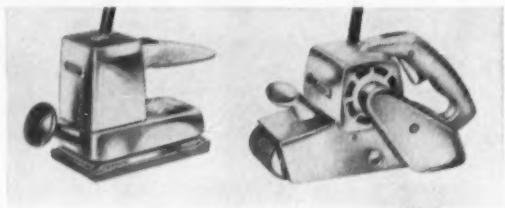


THE COLUMBIAN VISE & MFG. CO. • CLEVELAND 4, OHIO

For more details circle NED-557 B7 on enclosed inquiry slip

ORBITAL & BELT SANDERS do fast rough or finish sanding jobs on wood, metal or plastic

Orbital and belt sanders recently added to the Stanley tool line have air cooled motors, ball bearing construction and out-of-the-way positioned cords. The



H36 orbital unit which weighs 6½ lb has a 7 1/16 x 3⅝-in. pad and makes 4500 orbits per minute. Orbit size is 3/16-in. Auxiliary knob-type front handle can be removed for sanding close to perpendiculars.

Heavy-duty H31 belt sander weighs 15 lb, has belt size of 3 x 24 in. and idle speed of 1600 sanding fpm. Knob-controlled tracking adjustment aligns belt which can be changed in only a few seconds. "Timing" belt drive eliminates need for oiling of gears and minimizes maintenance. Sanders will rough or finish sand wood, metal or plastic. Made by **Stanley Works,** Stanley Electric Tools Div., 104 Elm St., New Britain, Conn.

For more details circle NED-560 B7 on enclosed inquiry slip

CHECK THIS

4-WAY SAVING WITH Work-O-Matic* Boxes!

GET *all* the facts about Work-O-Matic Drop-Bottom Boxes and Positioning Stands—the amazing new work-and-time savers. Write The Union Metal Manufacturing Company, Canton 5, Ohio.

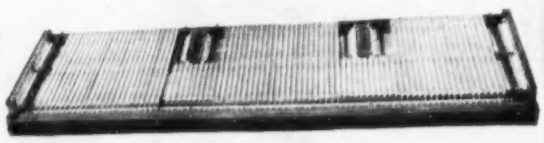
*Patent No. 2,445,038. Other patents pending.

UNION METAL
Materials Handling Equipment

For more details circle NED-563 B7

COMBINATION SWITCHING DEVICE controls on-off position of hundreds of switches in many combinations

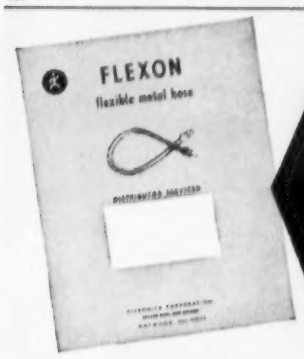
This remote combination action is essentially a switching device which will control the on or off position of numerous switches in an infinite number of



combinations. Typical example of its use would be a 500-stall parking building 10 stories high. With 50 stalls on each floor, only 50 indicator lamps would be needed on master panel. The panel would also have 10 pushbuttons for each of the 10 floors. Pressing buttons would indicate by lights what stalls were empty on which floor.

Other applications include flight reservations, inventory indication and control, job scheduling or indicating the position of automatic controls which may involve 5000 different indicating lights. With this action, 100 lamps could be viewed at a given time by pressing any of 50 different buttons. Made by **Klann Organ Supply Co.,** Dept. NED, Park Station, Waynesboro, Va.

For more details circle NED-561 B7 on enclosed inquiry slip



Here is the data you need to solve flexible metal hose application problems

FLEXON Catalog No. 152

In this new catalog you'll find specifications and application data on all types of Flexon metal hose — the most complete line available anywhere. It includes corrugated, interlocked, square locked and double groove types in a variety of metals and standard assemblies for specific services. Flexon Catalog No. 152 is a valuable addition to any maintenance file. Ask for your copy, today.

FLEXONICS CORPORATION
Formerly Chicago Metal Hose Corporation
1343 S. Third Avenue, Maywood, Illinois
Manufacturers of flexible metal hose and conduit, expansion joints, metallic bellows and assemblies of these components.
In Canada: Flexonics Corporation of Canada, Ltd., Brampton, Ontario

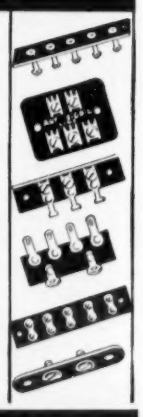
For more details circle NED-558 B7 on enclosed inquiry slip

Hundreds of standard JONES TERMINAL PANELS *Complete Equipment* FOR SPECIALS

Send your specifications for prompt quotation

JONES MEANS Proven QUALITY

Several pages of Jones Catalog No. 21 illustrate standard and special panels we are constantly producing. Latest special equipment enables us promptly to produce practically any panel required. Send print or description for prices without obligation. Hundreds of standard terminal strips also listed. Send for Catalog, with engineering drawings and data.



Jones HOWARD B. JONES DIVISION
CINCH MANUFACTURING CORPORATION
CHICAGO 24, ILLINOIS
SUBSIDIARY OF UNITED-CARR FASTENER CORP.

For more details circle NED-564 B7 on enclosed inquiry slip

FREE... 64 PAGE CATALOG

WORLD'S LARGEST LINE OF WORK HOLDING EQUIPMENT—CHUCK JAW BLANKS, CAST ALUMINUM AND MALLEABLE KNOBS, WHEELS, HANDLES—PLUS HUNDREDS OF OTHER JIG AND FIXTURE COMPONENTS

COMPLETE DETAILED SPECIFICATIONS
ENGINEERING DRAWINGS • COST SAVING DATA
write for your copy—TODAY!

JERGENS TOOL SPECIALTY CO.
Dept. NE-2 712 E. 163rd St., Cleveland 10, Ohio

For more details circle NED-559 B7 on enclosed inquiry slip

GASKETS·SHIMS WASHERS

From 1 to 1 Million

No matter what type, thickness, shape or quantity required, you can count on Chicago-Wilcox for uniformly accurate gaskets, shims, washers or special stampings.

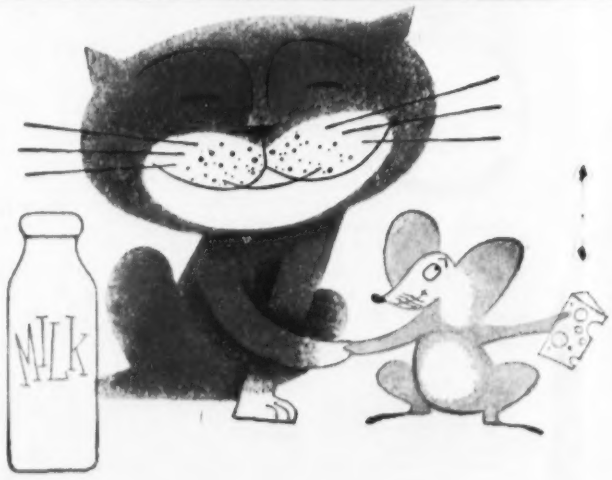
With 50 years accumulation of dies, chances are we can furnish just what you need without a die charge—thus reducing costs substantially and assuring on-schedule delivery.

Gaskets, shims and washers can be supplied in metallic, non-metallic and plastics . . . teflon, nylon, etc. . . . and in quantities to meet your production requirements.

Write for catalog and submit your specifications for quotation.

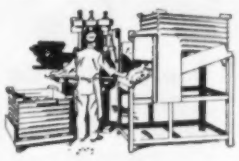
CHICAGO-WILCOX MFG. CO.
7713 South Avalon, Chicago 19, Illinois

For more details circle NED-562 B7 on enclosed inquiry slip



EVERY TYPE—EVE
SKF
Ball Bearings
Cylindrical Roller
Spherical Roller Be
Tapered Roller Be
Reg. U.S. Pat. Off. Tyton
SKF INDUSTRIES, INC., PHILADEL

For more details circle NED-565 B7

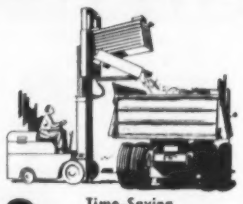


1 POSITIONING MATERIALS

A sure way to cut costs today is work-level positioning of parts-in-process. Work-O-Matic Drop-Bottom Boxes, on Union Metal Positioning Stands, effectively accomplish this. And a reservoir supplies the operator while empty boxes are replaced. Studies prove this 2-way advantage increases production up to 50%!

2 Easier HORIZONTAL MATERIAL MOVEMENT

Work-O-Matic Multi-Duty Boxes are performing all the functions of the best fork tiering skid boxes. In addition, Work-O-Matics allow 5-way fork entry for faster, easier handling in cramped quarters in both the factory and storage areas.



3 Time-Saving MECHANICAL DUMPING

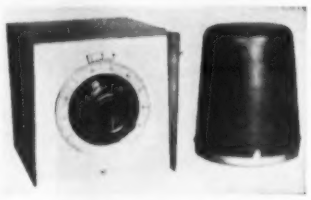
The superior drop-bottom feature of the Work-O-Matic Box, keeps the dumping point constant at any fork height. This permits accurate dumping with 100% control of spillage. Also, Work-O-Matics eliminate the necessity for manual removal of material, releasing labor for more skilled work.

4 Space-Saving STORAGE

Four Work-O-Matic Boxes can be tiered in the space usually required for *three* ordinary boxes, providing ⅓ more storage in the same floor space. Thus more parts or materials may be removed from the factory area and stored, ready for the next operation or shipment. Space is conserved in the factory and *fully* utilized in the storage area.

For more details circle NED-563 B7 on enclosed inquiry slip

REMOTE CONTROL
sets position of valve or rheostat



Dialtrol follow-up type remote control will position a valve, variable speed drive control, jack or rheostat. The Shaftrol control motor, with built-in or externally driven potentiometer, adjusts the valve or drive until setting is obtained. Follow-up accuracy within 0.2-per cent is standard. Dialtrol has adjustable "anticipation" to slow down control motor as desired setting is approached. Over travel is thus prevented. Unit controls motors up to ⅛ hp directly and up to 50 hp through a reversing starter. Location can be several thousand feet from control motor. Standard unit operates on 110 v 60-cycle single-phase current and can be panel or base mounted. Made by **Jordan Co.**, Dept. NED, 3235 W. Hampton Ave., Milwaukee 9, Wis.

For more details circle NED-567 B7 on enclosed inquiry slip

DUST RESPIRATOR
one-piece molded rubber unit

Integrally molded of resilient natural rubber, the No. 600 MonoMask respirator protects against dusts, pneumoconiosis producing mists and chromic acid mist. It uses a single filter of treated felt which is held in position by nylon retainer. Headband is attached to front of facepiece to provide reverse-lever action for a firm, safe fit against face. Pleats on top of facepiece assure close fit around bridge of nose. Respirator can be worn with spectacles or goggles. Made by **Ray-O-Vac Co.**, Willson Products Div., 219 Washington St., Reading, Pa.

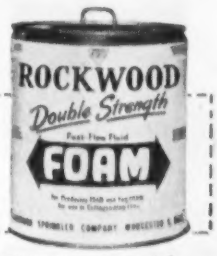
For more details circle NED-568 B7 on enclosed inquiry slip

PARTS CLEANER
fits standard 5 and 10-gal cans

Small parts can be automatically cleaned by the Air-Push Spragit, an air-operated parts cleaner which functions with any immersion cleaning fluid. Unit is quickly fitted on the cover of any standard 5 or 10-gal metal container. It agitates the furnished basket on a minimum of 12 psi air. Unit shuts off when lifted from the can and has an adjustable stroke. Made by **Sprague Devices, Inc.**, Larry & Huron Sts., Michigan City, Ind.

For more details circle NED-569 B7 on enclosed inquiry slip

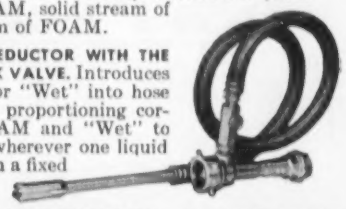
Rockwood DOUBLE-STRENGTH Foam
Smothers 'Em All!



Gasoline • Fuel Oil
Jet Fuel • Crude Oils
and other
Petroleum Derivative Fires

Team DOUBLE-STRENGTH Foam with these two Rockwood fire killers

TYPE SG-60 NOZZLE. A true all-purpose nozzle that fights fire 5 ways. It discharges high velocity WaterFOG, low velocity WaterFOG (with applicator), FogFOAM, solid stream of water or solid stream of FOAM.



FOAM AND "WET" EDUCTOR WITH THE FW METERING-CHECK VALVE. Introduces Rockwood FOAM or "Wet" into hose lines, automatically proportioning correct amount of FOAM and "Wet" to water. Also usable wherever one liquid is fed into another on a fixed percentage basis.

ROCKWOOD SPRINKLER COMPANY

Engineers Water . . . to Cut Fire Losses

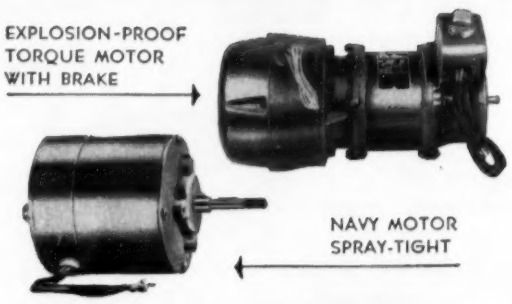
Portable Fire Protection Division

1649 HARLOW STREET, WORCESTER 5, MASSACHUSETTS

For more details circle NED-571 B7 on enclosed inquiry slip

IF STOCK MOTORS CUT MACHINE EFFICIENCY

EXPLOSION-PROOF TORQUE MOTOR WITH BRAKE



NAVY MOTOR SPRAY-TIGHT

Peerless builds a complete line of general purpose motors plus hundreds of specials for specific needs. Our engineers specialize in motor problems that require unusual mountings or construction to achieve maximum machine efficiency. Let us work with you on your problem. Write for Bulletin SDA-155. It tells how we help you.

Single Phase 1/2 to 7-1/2 HP **Polyphase 1/2 to 30 HP**

ELECTRIC MOTOR DIVISION

THE *Peerless-Electric*® COMPANY

FANS • BLOWERS • MOTORS • ELECTRONIC EQUIPMENT

1506 W. MARKET ST. • WARREN, OHIO

For more details circle NED-566 B7 on enclosed inquiry slip

Cut ANY Shape in Metal...
with a BEVERLY THROATLESS SHEAR!

- Capacities to 3/16" in mild steel
- Make clean, knurl-free cuts in any metal to capacity
- High Carbon High-Chrome Blades
- Built to last a lifetime

Here's What a Beverly Can Do!

Cuts made in 18 ga. metal with Model B-1

Beverly Shears are the most versatile metal shearing tools you can use. Unique shoulder design permits any cut . . . rack and pinion gives great power with little effort. Alloy steel body for maximum rigidity and strength. Made in 4 models.

Model B-3 with Ball Bearing Hold Down

Write for illustrated circular —or see your Beverly Distributor.

Beverly SHEAR MFG. CO.

3016 W. 111th Street Chicago 43, Ill.

For more details circle NED-572 B7 on enclosed inquiry slip

Good deal

For a good pillow block deal
Try the SAF with Triple Seal
That keeps out dirt, retains grease--
Lives of bearings greatly increase.

Self-aligning to the correct position
Operate well under any condition
So eliminate those production stops
Get **SKF** SAF Pillow Blocks.

When power fails and lights go out

PANIC STRIKES

. . . But Exide Lightguards* go on automatically when lights go out—prevent sudden darkness and panic. They protect you against the risks of injury, theft and lawsuits. Plug into your regular outlets. Built-in charger. Batteries last for years. Choose from four models. Send coupon today.

Exide®

*Lightguard is a trademark of The Electric Storage Battery Co., Reg. U.S. Pat. Off.

BE SAFE—MAIL COUPON NOW

Exide Industrial Division, The Electric Storage Battery Company, Phila. 2, Pa.

Send details on ☐ portable Exide Lightguards ☐ larger emergency lighting systems.

Name .....

Street .....

City ..... Zone ..... State .....

For more details circle NED-570 B7 on enclosed inquiry slip

Here's the answer to your baking operation problems!

Send for this FREE Book on how to cut costs with Fostoria Radiant Ovens

You will refer to this handy reference book on infrared industrial baking equipment time and again! It shows you how you can apply the money-saving advantages of Fostoria Radiant Ovens on baking, drying, dehydrating, degreasing and preheating . . . tells how you can speed up production, improve product quality, reduce operating and maintenance costs.

Typical case histories (detailed and illustrated) of plants such as yours prove the amazing savings of Fostoria Ovens. Your *free* copy of "Applications Unlimited" is waiting. Send for it today.

INFRA-RED fostoria SYSTEM

Components to Complete Ovens

THE FOSTORIA PRESSED STEEL CORP.

Dept. 208 • Fostoria, Ohio

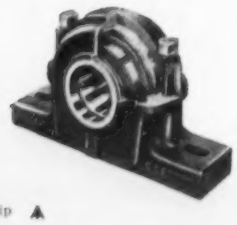
For more details circle NED-573 B7 on enclosed inquiry slip

RY TYPE—EVERY USE

l Bearings
lindrical Roller Bearings
herical Roller Bearings
bered Roller Bearings ("Tyson")

U.S. Pat. Off. Tyson Bearing Corporation

C., PHILADELPHIA 32, PA.



For more details circle NED-565 B7 on enclosed inquiry slip

MicroRold®
STAINLESS SHEET
Type 430 Bright Finish
up to 48" WIDE

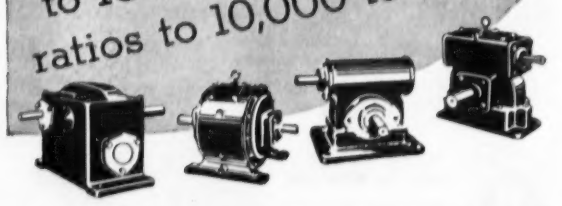
BRIGHTER THAN EVER!— MicroRold stainless steel Type 430 in the NEW Bright Finish is now immediately available in sheets up to 48" wide offering new usefulness and economy in stainless fabrication. Produced with the same micro-accuracy of gauge for which MicroRold 36" is well known, Type 430 Bright up to 48" wide gives greater latitude in applications for quality stainless steel.

MicroRold 430 is also available in the regular commercial finishes and MicroRold stainless in other grades are now produced up to 48" wide. Complete details sent on request.

Washington Steel Corporation
2-R WOODLAND AVE. WASHINGTON, PA.

For more details circle NED-574 B7 on enclosed inquiry slip

Abart SPEED REDUCERS — fractional to 168 hp. ratings ..... ratios to 10,000 to 1...



meet every speed reduction need!

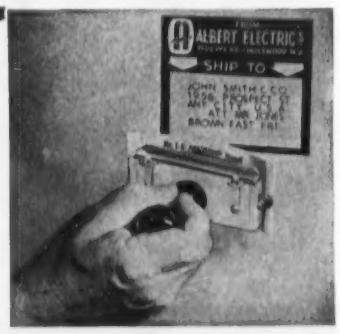
Compact, efficient Abart units last long, serve better and minimize maintenance. Spur, worm and combinations . . . single and double reduction types.

REQUEST POCKET-SIZE ABART CATALOG

ABART GEAR and MACHINE CO.
4831 WEST 16th ST. • CHICAGO 50, ILL.

For more details circle NED-575 B7 on enclosed inquiry slip

The Quick . . Accurate Way to Address Shipping Cartons



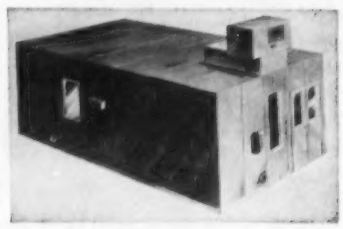
PRINT DIRECT

The MULTISTAMP Hand Stamp Stencil Duplicator prints shipping data direct on cartons, boxes, packages, and eliminates double operation of preparing labels and then pasting them on the containers. Handy as a rubber stamp . . . fully portable, non-mechanical, no moving parts to wear. Get 1,000 or more clear sharp impressions from one typewritten or handwritten inexpensive stencil without re-inking. In photo above, shipper's name, address and "Ship To" label frame were preprinted by carton manufacturer.

Also for addressing shipping tags and labels . . . prints postcards, menus, forms, bulletins. 8 complete outfits: $9.50 to $99.50, including supplies (f.o.b. factory). At office or shipping room supply dealers.

For more details circle NED-576 B7 on enclosed inquiry slip

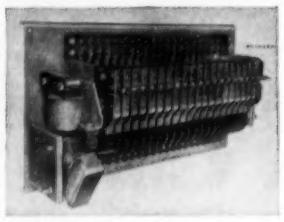
CONDITIONED TEST ROOMS
prefabricated units hold 68° F



Ranging in size from 12 x 15 ft to 30 x 40 ft, line of prefabricated air conditioned booths meet gage laboratory requirements of MIL-STD 120. They have clear span ceiling from 8½ to 18 ft, will maintain a temperature of 68° F, ±1° F and will hold relative humidity below 50 per cent. Uses include gage inspection and repair, precision measurement, jig boring and close tolerance final assembly. Entrance features an air lock. Booths are sold installed, ready for connection to user's utilities. Price includes erection and first year's service on air conditioning system, filters and luminous ceiling. Made by **Agnew-Higgins, Inc.**, Dept. N, 40 S. Los Robles, Pasadena, Calif.

For more details circle NED-577 B7 on enclosed inquiry slip

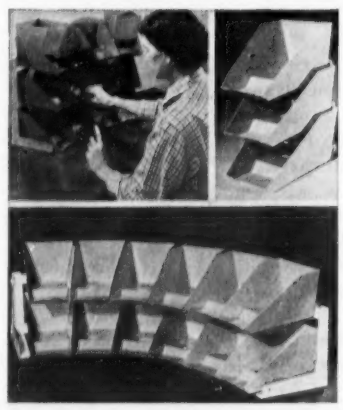
HEAVY DUTY STEP SWITCH
with up to 20 independent circuits



Available with 1 to 20 independent circuits, the MT series step switch for heavy duty industrial use carries contact ratings of 10 amp. Rotary solenoid actuating coil opeartes on 115 v 60 cycles without use of rectifiers. Independent cam-operated contacts allow setup of any combination for a given application. It provides positive interlock between sequence operations on one or more machines, on conveyor systems, batch mixing, or similar applications. Basic mechanism withstands extreme environmental conditions. Made by **Eagle Signal Corp.**, Dept. NED, 202 Twentieth St., Moline, Ill.

For more details circle NED-578 B7 on enclosed inquiry slip

PARTS ASSEMBLY BINS
facilitates easy grasp for assembly



Small parts are positioned for easy grasping by worker with use of NesTier M small parts assembly bins. Individual hoppers are tapered, with narrowest width in front, forming a natural arc when placed side-by-side on a rack. Since hoppers will stack firmly on top of one another, use of rack is optional. Stepped insert in hopper bottom controls rate of parts flow and also improves parts visibility. For assembly operations involving small screws, balls and other parts which do not slide or widthdraw easily, hoppers are available with sponge rubber bottoms to facilitate grasp. Extenders can be furnished to increase hopper capacity. Made by **Chas. Wm. Doepke Mfg. Co.**, 8884 Blue Ash Rd., Rossmoyne, O.

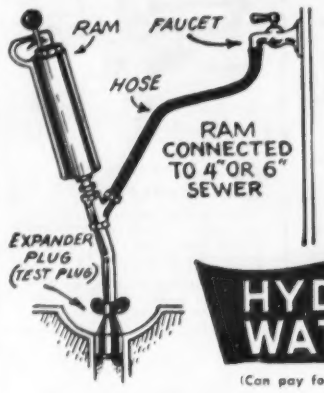
For more details circle NED-579 B7 on enclosed inquiry slip

AIR-OPERATED VALVES
for water, chemical and process uses

Drip-tight shutoff is obtained in line of air-operated control valves through use of the diaphragm method of closure. Streamlined flow area, free of obstructions, assures full flow. Valves are suited for water treating, chemical and process industry applications and have no stem packing or stuffing box. Variety of body materials, body linings and valve diaphragm materials are available in ½ to 6-in. sizes for on-off throttling control. Springless, close-coupled or spring types are offered. Made by **Uniflow Valve Corp.**, 19 Quine St., Cranford, N. J.

For more details circle NED-580 B7 on enclosed inquiry slip

Enjoy 30 Day Free Trial!



Easily clears the most stubborn drain and sewer stoppages

The ideal plumbing service tool for maintenance men!

HYDRAULIC WATER RAM
(Can pay for itself in one application!)

Why lose time, suffer inconvenience, waste dollars on needlessly costly plumbing service? The Hydraulic Water Ram clears severest blocked drain lines and sewers in minutes. No chemicals, no snakes, no electric cables, no pushing through. Saves costly outside help, or expensive torn up piping. Uses IMPACT, (HYDROSTATIC) & basic scientific principle of POSITIVE HYDRAULIC POWER. Shatters hard grease, debris, other blockage into fragments easily flushed down to main. Works perfectly, vent or no vent! Services up to 6" pipe. Works perfectly on all types of clogged toilets, sinks, sewers, etc. Can pay for itself in a single application. Nothing to wear out. Good for a lifetime. Thousands in use, including over 3,000 in government agencies. You risk nothing. Write for details on how to get free 30 day trial at our expense.

Write for Information, Prices, Details of Free Trial Offer!

HYDRAULIC MANUFACTURING CO.
Dept. ND-2 Kiel, Wisconsin

For more details circle NED-581 B7 on enclosed inquiry slip

JACO LOW COST AUTOMATIC

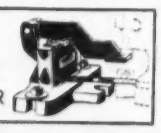
STOCK REEL
COSTS NO MORE THAN STANDARD STOCK REELS

POWERED BY THE NATURAL SPRING OF UNCOILING STOCK

3 SIZES — ALL WILL TAKE 6" WIDE STOCK.
24" diameter $85.00
30" diameter $89.00
36" diameter $95.00

Guaranteed — money back if not 100% satisfied

New LOW prices on the JACO 3-inch and 6-inch SCRAP CHOPPER

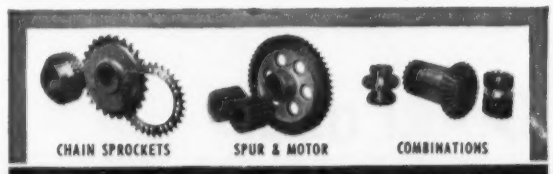


WRITE FOR FULL DETAILS TODAY!

Dealer Inquiries Invited

JACO DEVICES, INC.
95 High Street • Hingham, Mass.

For more details circle NED-582 B7 on enclosed inquiry slip

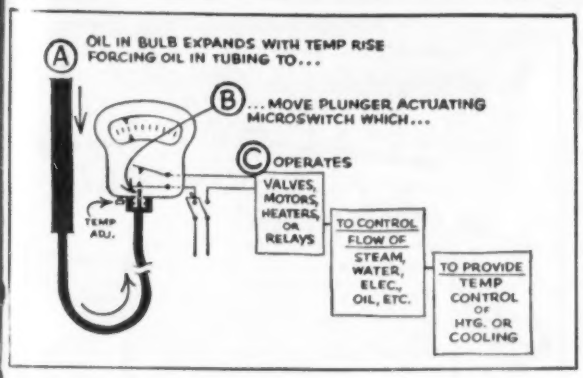


GREAVES GEARS
Manufactured to your specifications or samples

GEARS • SPROCKETS • RACKS • LEAD SCREWS
Cast Iron, Steel, Bronze — Plain or Heat Treated
All Types of Non-Metallic Materials

For prompt estimates, write or wire TODAY!
GREAVES MACHINE TOOL CO.
2302 Eastern Avenue Cincinnati 2, Ohio

For more details circle NED-583 B7 on enclosed inquiry slip



SIMPLE • DEPENDABLE • AUTOMATIC

TEMPERATURE CONTROL

Cost—only about $100!

As simple as A-B-C...this Sarco ELECTRIC INDICATING temperature control! Just check these advantages:

1. Adjustable, indicating, accurate to ±½°F.
2. No gadgets that call for a technician to read and repair. So simple, so trouble-free... maintenance seldom, if ever, needed.
3. Turn one knob to change temperature control setting. Large, easy-to-read scale.
4. Offers you many sequence combinations such as:—step heating, heating and cooling, wide limit control.

Write for Bulletin 1025 to Sarco Company, Inc., Empire State Bldg., New York 1, N. Y.

2166-P

SARCO

▲ For more details circle NED-584 B7 on enclosed inquiry slip ▲

Shorten costly break-in periods! Simply spray on this perfect parting agent from self-dispensing aerosol! Useful too in PATTERN MAKING—releases patterns from master molds with minimum surface defects. Remember...

WHERE ANYTHING STICKS it always pays to try IMS SILICONE SPRAY

Get new tools into production sooner. Keep a few cans handy all the time. Order today!

DELIVERED PRICES
Single Can $2.00
Unbroken Dozen . . . $18.00
Unbroken Gross . . . $197.40

INJECTION MOLDERS SUPPLY CO.
3514 LEE ROAD WYoming 1-1424 CLEVELAND 20, OHIO

▲ For more details circle NED-585 B7 on enclosed inquiry slip ▲

The Powerful **NEW** Hi-Torque

HANDEE®

FOR DIE TOUCH-UP WORK

Grinds, polishes, cuts, saws, engraves, cleans and burnishes. Can be used for working in wood, hardened steel, non-ferrous metals, glass, ceramics, etc. A big time-saving tool for light production grinding and touch-up for all shops, tool and die plants, foundries, etc.

The new Hi-Torque Handee is packed with speed (25,000 r.p.m.) and power. Perfectly balanced, cool running, fits the hand for pencil point precision in delicate work. New chuck lock design for quick change of accessories. Available in 110 or 220 volt, 25 to 60 cycles.

Write for Catalog

Chicago Wheel & Mfg. Co.
Dept. NED-2
1101 West Monroe Street
Chicago 7, Illinois

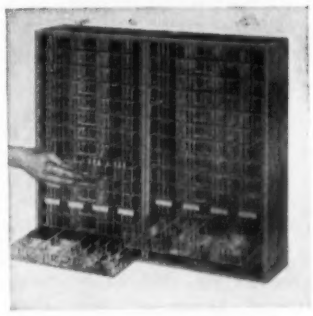
▲ For more details circle NED-586 B7 on enclosed inquiry slip ▲

PORTABLE GAS TORCH
releases 1,300,000 Btu per hour

Manufactured, mixed, natural, propane or butane gas can be burned in this portable torch which operates with 40 psi or more of compressed air on a venturi injector principle. Used in heating, melting, drying, lighting and thawing operations, torch lights instantly without preheating. Burner generates 2700° F heat and is unaffected by wind. Made in five sizes, burner produces flame from 6-18 in. long in smallest size and 10-48 in. long in largest size. Respective maximum release ratings are 325,000 and 1,300,000 Btu per hour. Made by **Hauck Mfg. Co.**, 128-138 Tenth St., Brooklyn 15, N. Y.

▲ For more details circle NED-587 B7 on enclosed inquiry slip ▲

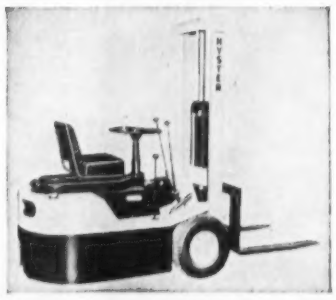
SMALL PARTS CABINET
has 112 clear-view drawers



Latest addition to line of E-Z Find Full Vue small parts storage units is this 112-drawer cabinet. Four transparent plastic drawers measuring 5⅞ x 1 7/16 x 2¾ in. each are molded as one piece and pull out as one large drawer. Individual drawers are further subdivided into two or three separate compartments, lengthwise or crosswise. Safety catch prevents drawers from being pulled out too far. Steel cabinet measures 22½ x 25⅛ x 6 in. and has enclosed back. Units can be stacked one above the other, used side by side, or back to back. Made by **Akro-Mils, Inc.**, Box 989E, Akron 9, O.

▲ For more details circle NED-588 B7 on enclosed inquiry slip ▲

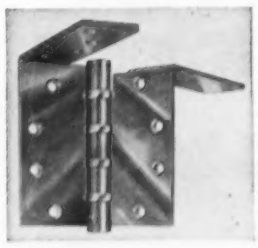
LIFT TRUCK
2000-lb, pneumatic tired model



Pneumatic tires, constant mesh transmission and a Wisconsin model VH4 four-cylinder air-cooled engine are features of the Hyster 20 model QC lift truck. It is offered in capacity ranges of 2000 lb at 15 and 24-in. load centers and 100 lb at 24-in. load centers. UL-approved LP-gas equipment and a Load-Grab clamp and side-shift carriage are optional. Lift heights are 72, 96 and 120 in. in Monomast models and 95 and 119 in. in free-lift models. Standard forks are 30 in. long, with 36, 42, and 48-in. arms optional. Made by **Hyster Co.**, 2906 N. E. Clackamas St., Portland 8, Oreg.

▲ For more details circle NED-589 B7 on enclosed inquiry slip ▲

ANCHOR HINGE
for exterior wood or metal doors



This wrought steel anchor hinge is designed for hanging exterior wood or metal doors where door holder or closer, in conjunction with other conditions, causes severe strain on hinges, especially the top one. Hinge measures 5 x 4½ in. size and is adaptable to all doors 1¾ to 2¼ in. thick. It is equipped with four bearings, either Oilite or ball, and is triple plated or bonderized and prime coated. Model T4A 3790½, which has anchor plate extending out from both jamb and door leaf, is used as top hinge when a door holder or closer is mounted on door surface. Model T4A 3791¼, with anchor plate on jamb leaf only, is used where either concealed closer or holder has been mortised into top of door. Made by **McKinney Mfg. Co.**, 1715 Liverpool St., Pittsburgh 33, Pa.

▲ For more details circle NED-590 B7 on enclosed inquiry slip ▲

Rauland CENTRAL CONTROL

SOUND FOR INDUSTRY

complete facilities for PAGING & PUBLIC ADDRESS

versatile radio & phonograph MUSIC DISTRIBUTION

TAILORED-TO-FIT EQUIPMENT AT "STANDARD UNIT" LOW COST

Whether your sound requirements are 60 watts of power or 6000...whether they call for one distribution channel or many—there are quality RAULAND standard units available to custom-fit your exact needs at lowest cost. Look to RAULAND for everything in the field of Sound for Industry.

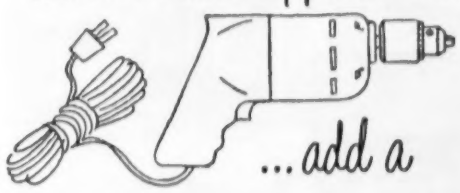
WRITE US FOR COMPLETE DETAILS

Makers of Famous AMPLICALL Intercom Systems

RAULAND-BORG CORPORATION
3515 Addison St., Dept. D, Chicago 18, Ill.

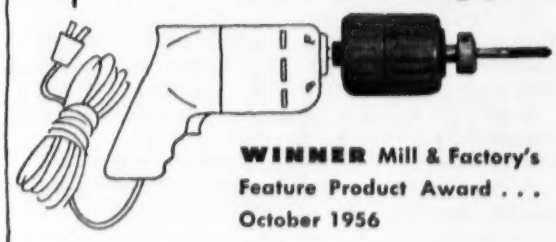
▲ For more details circle NED-591 B7 on enclosed inquiry slip ▲

Take an ordinary portable drill



...add a

Supreme **Push-Pull Tapper**

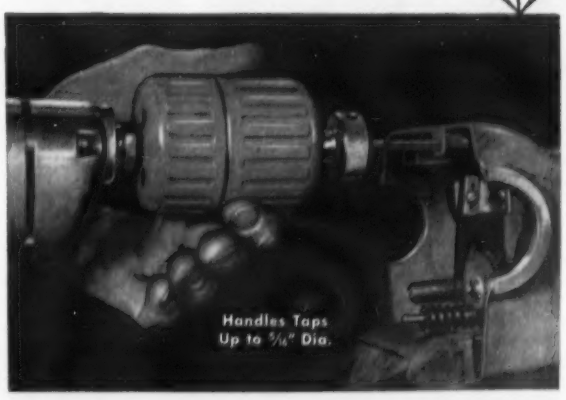


WINNER Mill & Factory's Feature Product Award . . . October 1956

Tap in all materials—fast, safely, accurately—with *minimum* breakage

The Supreme PUSH-PULL TAPPER is an instant-reversing speed reduction unit made expressly for tapping. The prize-winning Push-Pull attaches easily to either the spindle or chuck of any drill. Speed reduction of 7:1 gives adequate power to tap in all materials... instant-reversing means that tap direction can be reversed without stopping drill. Tap can be moved into and out of the hole at will.

With the Push-Pull tap breakage is minimum. Finger-tip control gives operator a better "feel" for break-causing strains. Complete PUSH-PULL TAPPER Kit, No. 9000, costs just $29.95; includes everything but taps. Write for literature.



Supreme **Push-Pull Tapper**

by the makers of SUPREME BRAND CHUCKS

SUPREME PRODUCTS CORP., 2222 S. CALUMET, CHICAGO 16

▲ For more details circle NED-592 B7 on enclosed inquiry slip ▲

HOLDS NON-MAGNETIC MATERIALS ON MAGNETIC CHUCK

Magna-Vise*

(. . . a pair of spring-loaded clamps, actuated by magnetic pull of the chuck, hold material firmly against chuck face.)

*Patented

NEW LOW PRICES!

Model	Length	Width	Thick	Dia.	Price*
6	6⅝"	1 5/16"	9/64"	⅞"	$26.00
6A	6⅝"	1 5/16"	9/64"	⅞"	28.00
10	10"	1 5/16"	9/64"	⅞"	35.00
14	14"	1 5/16"	9/64"	⅞"	52.50

*F.O.B. Big Rapids, Michigan

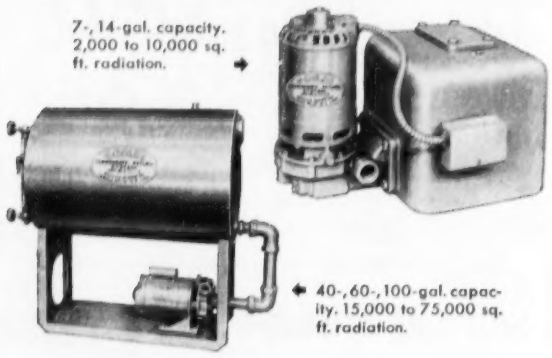
ORDER TODAY, DEPT. ND-27

Magna-Lock magnetic chucks and devices

MAGNA-LOCK, INC.
BIG RAPIDS, MICHIGAN, U. S. A

For more details circle NED-593 B7 on enclosed inquiry slip

NEW CONDENSATE RETURN SYSTEMS



Both units receive and return condensate to boiler automatically by means of float switch.

Boiler Feed Return blends raw make-up water with hot return condensate automatically.

Goulds bronze-fitted, close-coupled, centrifugal pumps. Nonleaking. No adjusting.

7-, 14-gal. receivers are cast iron. 40-, 60-, and 100-gal. receivers are heavy gauge sheet steel.

Duplex units available.

Write for Bulletin 660A1 for details.

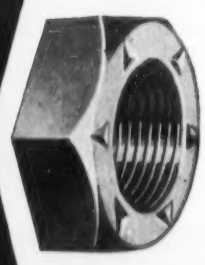
MEMBER

Goulds PUMPS INC. Seneca Falls New York

Sales Offices: Atlanta • Boston • Chicago • Houston • New York • Philadelphia • Pittsburgh • Tulsa

For more details circle NED-594 B7 on enclosed inquiry slip

Use this THIN GRIPCO JAM NUT



FOR • Valve Handles • Casters • Shears • Clippers • Sickle Bars

or wherever you need a positive lock on short bolts where the strength of a full nut is not needed.

GRIPCO JAM NUTS come in the New Unified Finished and Heavy Series (Hexagon), in standard full and jam dimensions, in steel, brass and aluminum.

Gripco Products Include:

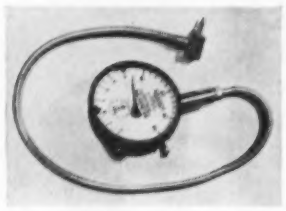
Gripco Lock Nuts • New Gripco "Clinch Nuts" Gripco Hi-Nuts • Gripco Pilot-Projection and Countersunk Weld Nuts all with or without the famous Gripco positive locking feature. Also Standard Semi-Finish Nuts.

Write for samples and full particulars.

GRIP NUT COMPANY
106 Maple Ave. • South Whitley, Ind.

For more details circle NED-595 B7 on enclosed inquiry slip

AUTOMATIC SIZING GAGE
applicable to machine control



Deltameter automatic sizing gage is suitable for machine control when gaging is done during processing of parts, selective sorting and other control methods where it is desirable to actuate electric circuits for control purposes. The pneumatic indicating instrument is applicable to any grinding gage with standard fitting for dial gages. Measuring heads, with and without zero adjustment, are available. Gages have symmetric scales and are graduated in 0.001, 0.0005, 0.0001 and 0.00005-in. increments. Indicating Deltameters for grinding operations have a scale range of 0.013-in. divided in one coarse and one fine measuring range. Instruments with up to 12 electric contacts can be furnished. Distributed by **C. E. Johansson Gage Co.**, Dept. M, 10641 Haggerty Ave., Dearborn 1, Mich.

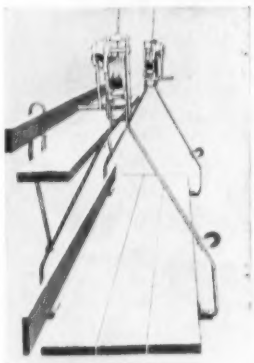
For more details circle NED-596 B7 on enclosed inquiry slip

CONCRETE FASTENING DEVICE
in 1/4 to 7/8-in. sizes

Bright red expander plug identifies the new Phillips Red Head concrete fastening device which drills its own hole by impact. Made of case hardened manganese steel, fastener has serrated cutting teeth at one end and a threaded socket at the other. Circular cutting grooves act as broach which undercuts the hole. Fastener cannot pull out, rust out, melt out or shake loose. Available models include clinch nail for furring, tie wire for metal lathing and stud anchor fasteners. Sizes range from 1/4 to 7/8 in. Made by **Phillips Drill Co.**, Dept. N, Michigan City, Ind.

For more details circle NED-597 B7 on enclosed inquiry slip

LIGHT DUTY STAGE
has hip level material platform



Capacity of the Budget-Swing light duty stage is 700 lb. It is offered with 75 ft of wire rope on each winch for raising or lowering at speeds to 20 fpm. Other features are an 8-in. wide material platform at hip level, guard rail, toe board and a 4-to-1 safety factor. Three automatic protective devices are a mechanical brake built into the direct-drive gear mechanism, a spring-loaded pawl that engages the winch drum with the stirrup, and a handle-stop which prevents inadvertent handle reversing. Stage uses three 10-in. planks for platform. Made by **Safway Steel Products, Inc.**, 6224 W. State St., Milwaukee 13, Wis.

For more details circle NED-598 B7 on enclosed inquiry slip

TRACK LEVEL & GAGE
has sliding elevation rod

Square extruded, heat treated aluminum alloy is material used in the No. 23 combination track level and gage which has gage spacer stop scaled for quick

sighting. Easily read elevation rod with 1/8-in. graduations from 0 to 7 in. slides into end of hollow tube when not in use. Rail stop is provided at opposite end. Level is insulated and available with 22½-in. radius adjustable vial (standard) or AREA approved adjustable top plate assembly fitted with 57½-in. radius barrel ground vial. Low center of gravity minimizes tipping in use. Weight is 5 lb. Made by **Aldon Co.**, Tool Dept., 3338 Ravenswood Ave., Chicago 13, Ill.

For more details circle NED-599 B7 on enclosed inquiry slip

A NEW DIMENSION IN DESIGN MATERIAL...

PRECISION BORE GLASS TUBING

Wilmad Offers Unheard-Of Accuracy and Low Cost

Design Engineers are constantly searching for new materials to reduce costs and improve preformance. Wilmad has helped make glass a "new" material by producing precision bore tubing of uniform accuracy with amazing tolerance limits. Wilmad Precision Bore Tubing can be used in making product components, instrument assemblies or sub-assemblies, wave guide tubes, manometers, rotameters, viscosimeters, barometers, McLeod gauges, dilatometers, burettes, dash pots, capacitors, diodes . . in virtually hundreds of precision applications in industry.

Learn how precision bore glass tubing can improve **your** product. Let our engineers help you determine how Wilmad Glass Tubing can solve your design problems.

Write for our **new** bulletin on Precision Bore Tubing.

WILMAD GLASS CO., INC.
Landisville, New Jersey

For more details circle NED-600 B7 on enclosed inquiry slip

. . . here's how one metal warehouse saves $12,000 a year with NU-RAIL Slip-on Fittings

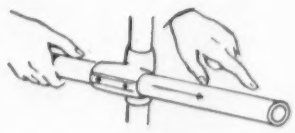
Damage from former storage methods cost The Metal Goods Corporation of St. Louis $1,000.00 a month — until they installed racks constructed with NU-RAIL Fittings to store their aluminum and stainless steel sheet.

Today such needless waste has been ENTIRELY ELIMINATED!

"No damage has been noted since NU-RAIL racks were put to use," says Plant Superintendent, John Janson, who designed the setup. "Sheets are stored in upright position, with protective paper between. They remain protected until needed, require less handling. NO DISCARDS!"

ADDITIONAL SAVINGS:

- Quicker, easier installation — substantial savings on erection cost
- Assembled by shop maintenance men
- All fittings re-usable
- Less pipe-cutting — more salvageable pipe
- Stronger, sturdier racks — no welding — no threading to weaken pipes

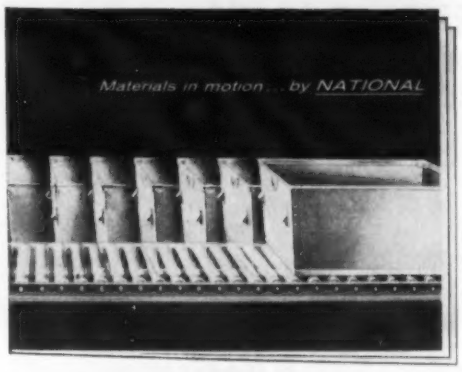


NU-RAIL Fittings are time-saving, labor-saving, completely different from existing methods. Patented offset design permits continuous pipe-lengths to cross through the fittings . . . involves no welding or threading . . . reduces pipe cutting to a minimum. NU-RAIL just slips on — locks in place with vibration-proof screws.

What NU-RAIL Slip-on Fittings accomplished for Metal Goods Corporation, they can do for you. Write today for details.

THE HOLLAENDER MANUFACTURING CO.
3839 SPRING GROVE AVE. • CINCINNATI 23, OHIO

For more details circle NED-601 B7 on enclosed inquiry slip



FREE MATERIALS HANDLING GUIDE...

- How blue chip companies cut materials handling costs.
- How a simple change in *receptacles* can speed your work.
- How to buy handling equipment that pays for itself.
- How Kennett receptacles reduce damage to parts and components.

WRITE NOW for your free copy of "MATERIALS IN MOTION"—your dependable guide to real savings in materials handling. Address Department K-2.

NATIONAL VULCANIZED FIBRE CO.
WILMINGTON 99, DELAWARE
In Canada: National Fibre Company of Canada, Ltd., Toronto 3, Ontario

For more details circle **NED-602 B7** on enclosed inquiry slip

APEX DISC GRINDER

BRINGS YOU NEW HIGH SPEED HEAVY PRODUCTION AT LOW INITIAL COST

A popular disc grinder that incorporates features wanted most by industry. Table moves up and down, tilts accurately and squares automatically. Wrap-over guard tilts back to handle work at top of disc. Available in three disc sizes, 15", 16", 20" Specifically engineered to handle heavy production schedules at high speed with extreme accuracy. Economically priced. Write today for complete information and name of distributor nearest you.

Dealer Inquiries Invited

Rankin Bros.
ENGINEERING & SALES, INC.
11090 S. ALAMEDA ST. LYNWOOD, CALIF.

For more details circle **NED-603 B7** on enclosed inquiry slip

STEEL CITY TESTERS ARE SUITED TO YOUR INDIVIDUAL NEEDS . . .

Yours for the asking...

This brochure illustrates and describes many types of machines for testing physical properties of metals. It belongs in your file.

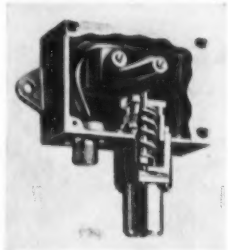
Write to:

Steel City Testing Machines Inc
8819 Lynden Ave., Detroit 38, Mich.

Sales offices in *all* metalworking areas.

For more details circle **NED-604 B7** on enclosed inquiry slip

PRESSURE SWITCH for 0-1200 psi air or hydraulic use



This hydraulic and pneumatic pressure switch operates on 0 to 1200 psi and will withstand over-pressure as high as 3000 psi. Adjustments over its entire range can be made without interfering with the element. The totally enclosed, weatherproof unit is made of cast aluminum, or stainless steel if desired, and uses any Micro Switch rated to 15 amp, 120 to 460 v ac with single-pole double-throw silver contacts. Also available for direct current, switch can be arranged for wall or bracket mounting in any position. Made by **Alloy Bellows Engineering Co.**, 18126 Roseland Rd., Cleveland 12, O.

For more details circle **NED-605 B7** on enclosed inquiry slip

POWER HAND GRINDERS electric tool runs at 25,000 rpm

Weighing 14 oz and designed to grind, cut, carve, drill, sand, saw, engrave, polish, clean and burnish, the series 6000 Handee power hand tool operates at 25,000 rpm. It has large air ducts for cool operation, large Oilite bearings and a built-in chuck lock for quick change of accessories. Tool works in wood, hardened steel, nonferrous metals, glass, ceramics and plastics. Models for 110 or 220-v 25 to 60-cycles are available, each with set of accessories and steel case. Made by **Chicago Wheel & Mfg. Co.**, Dept. NE, 1101 W. Monroe St., Chicago 7, Ill.

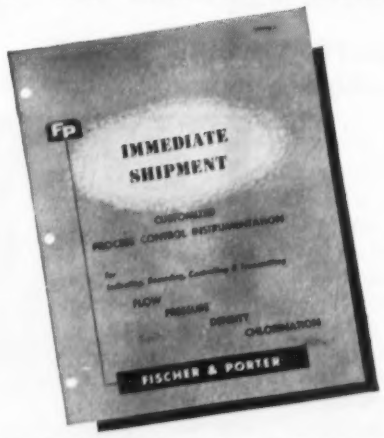
For more details circle **NED-606 B7** on enclosed inquiry slip

PROTECTIVE CLOTHING treated to resist abrasion

Nylon fabric impregnated on both sides with a resin compound is used in this line of special protective clothing. Fabric is calendered to assure a good bond that resists peeling and provides long wear and flexibility. It is abrasion resistant and difficult to tear. Aprons, coats, jumper suits, jackets, pants, helmets, leggings, sleeves and spats in all standard sizes are among items that make up this line. Offered by **Safety Clothing & Equipment Co.**, 1984 E. 69th St., Cleveland 3, O.

For more details circle **NED-607 B7** on enclosed inquiry slip

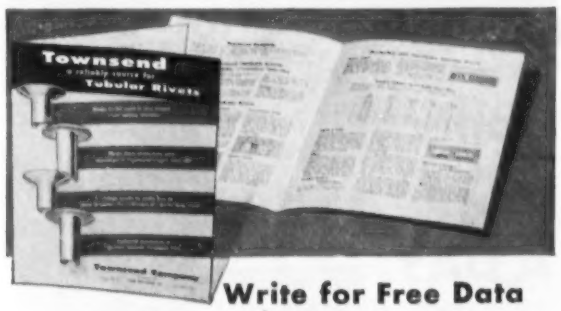
PROCESS CONTROL INSTRUMENTS READY FOR IMMEDIATE SHIPMENT



There's no need to let slow delivery on instruments tie-up your process. A wide variety of Fischer & Porter flowmeters, transmitters, indicators, recorders, controllers and chlorinators are available for immediate delivery. This equipment meets the same high standards as all F&P products. Write today for Catalog 2 with complete prices and specifications. Fischer & Porter Company, 3527 County Line Rd., Hatboro, Pa.

FP FISCHER & PORTER CO.
Hatboro, Pa.
COMPLETE PROCESS INSTRUMENTATION

For more details circle **NED-608 B7** on enclosed inquiry slip



Write for Free Data on Townsend Tubular Rivets

A new booklet describing how to attain quick, economical, permanent fastening with Townsend tubular rivets which are designed for use with any model of tubular rivet setting machine is now available.

This booklet shows how various types of tubular rivets are applied. Special sections are devoted to dimensions and specifications. Four tables are included to give Townsend's recommendations for standard head and shank dimensions, clinching allowances and hole sizes. Also, the minimum shank lengths and length increments, in which tubular rivets are normally manufactured, are shown.

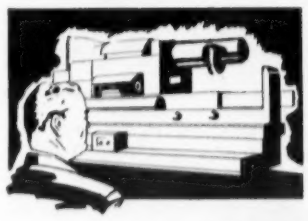
For this information on how you can use Townsend tubular rivets to attain greater efficiency in assembly, reduce unit costs, write for Bulletin TL-103 to Townsend Company, P.O. Box 237-G, New Brighton, Pa.

Townsend Company
NEW BRIGHTON, PENNSYLVANIA

For more details circle **NED-609 B7** on enclosed inquiry slip

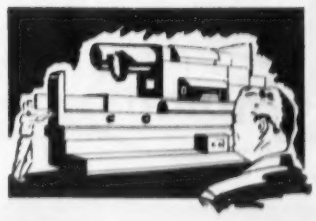
the New **MULTITON** TRADE MARK

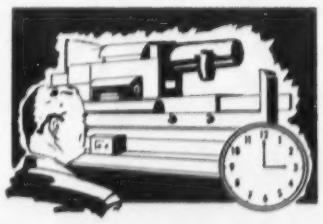
roller skids



move your **OWN** machinery*

with your **OWN** men . . .





on your **OWN** time . . .

and SAVE MONEY

*or any other heavy load (2 tons to 300 tons)

FREE! 13 page "How To" booklet. "On-location" engineering service for special applications. Write, wire or phone:

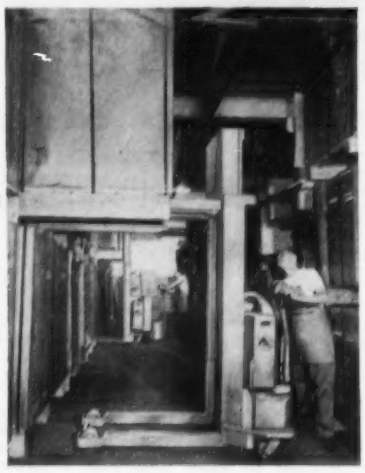
STOKVIS • EDERA & CO., inc.
18 Secatoag Ave., Dept. NED-2, Port Washington, New York

For more details circle **NED-610 B7** on enclosed inquiry slip

L-S ELECTRICS FOR LIFT TRUCK SAVINGS

only $2.82 A DAY* TO OWN, OPERATE, AND MAINTAIN!

Reports Berkshire Papers, Inc. Chicago, Illinois



Narrow-aisle, high-tiering L-S JackStacker "Walkie" Electrics have cut space and stock handling costs *in half* at Berkshire Papers. But even more amazing, each L-S JackStacker costs Berkshire *only $2.82 a day to own, operate, and maintain.*

L-S JackStacker is ideal for warehouse work. Right angle stacks 48" loads in aisles less than 6' wide. Lift heights to 180". Capacities to 6000 lbs. Write to:

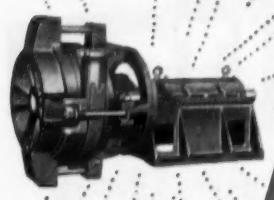
L-S **LEWIS-SHEPARD®** The most complete line of materials handling equipment anywhere

*Based on 5-year average of equipment, operating, and maintenance cost

The "MASTER" Line 172 Walnut St., Watertown 72, Mass.

▲ For more details circle NED-611 B7 on enclosed inquiry slip ▲

Choose **MORRIS TYPE RX Slurry Pump** *... for continuous trouble-free operation*



Morris Type RX Pump Features:

- Gland under suction pressure only. Practically eliminates packing troubles.
- To dismantle, only 4 bolts need be removed.
- Impeller and liner may be removed without disturbing piping.
- Right or lefthand rotation. Suction and discharge nozzles rotate to positions in any of 4 quadrants.

The Morris Type RX Slurry Pump offers end cover liner and separate suction disc, permitting use of special metals at points of greatest wear with minimal cost. It handles caustic or acid mixtures containing abrasives or solids; also ore concentrates, tailings, slag, filter and classifier residue.

Write for Bulletin 185.

Morris Machine Works Baldwinsville, N. Y. Sales Offices in principal cities

MORRIS *Centrifugal Pumps*

▲ For more details circle NED-612 B7 on enclosed inquiry slip ▲

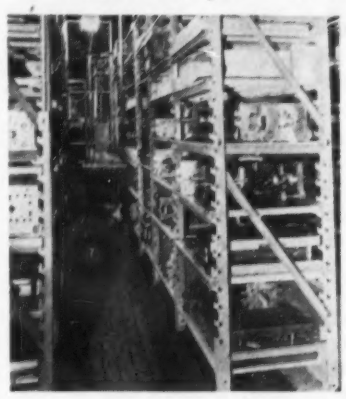
FULL CONE—HOLLOW CONE—FLAT SPRAY

Spraco has the most complete line of nozzles available anywhere — **IN STOCK.** Capacities range from ⅛ pint/min. to 4000 gal./min. Bronze, cast iron, and stainless steel. Write for our nozzle catalog.

SPRAY ENGINEERING CO., *100 Central St., Somerville 45, Mass.*

▲ For more details circle NED-613 B7 on enclosed inquiry slip ▲

DIE STORAGE RACK
shelves adjustable on 4-in. centers



Prefabricated steel shelves of this adjustable die storage rack can be independently located at any level. They can be adjusted without tools even after rack has been installed and shelves loaded. Shelves have hooks which engage notches in the easily erected uprights. Adjustment is on 4-in. centers. Shelf capacity is 12,000 lb. Made by **Hartman Metal Fabricators, Inc.,** Dept. 7, 133 Murray St., Rochester 6, N. Y.

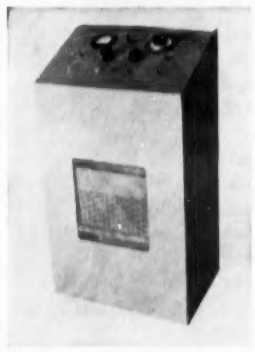
▲ For more details circle NED-614 B7 on enclosed inquiry slip ▲

PNEUMATIC NIBBLER
cuts 10-gage stainless at 55 ipm

Air-powered portable metal cutting nibbler can cut at rate of 55 ipm through 10-gage stainless steel or softer metals in proportionate thicknesses without distortion on either side of the cut. Edge is left ready for fabricating. Short turning radius permits intricate patterns and special openings to be cut by the 13-lb, 13-in. long tool. It has a cast aluminum frame, antifriction bearings on all rotating parts, hardened gears and a heavy duty Cleco air motor that requires 30 cfm of air at 90 psi. Minimum cutting radius is 6 in. Made by **Fenway Machine Co.,** Dept. D, Edgemont & Clementine Sts., Philadelphia 34, Pa.

▲ For more details circle NED-615 B7 on enclosed inquiry slip ▲

ULTRASONIC GENERATORS
for various industrial processes



Cleaning, chemical processing, soldering and drilling are among electromechanical techniques that can be performed with series of ultrasonic generators. They are designed to drive a variety of low impedance ultrasonic transducers and feature an untuned output system, 500-w RF power and a varied range of frequency levels. The Glennite U-405 series units are blower cooled and operate at a nominal fixed frequency of 40 kc or at any frequency between 20 kc and 2 mc, depending on the model. Made by **Gulton Industries, Inc.,** 210 Durham Ave., Metuchen, N. J.

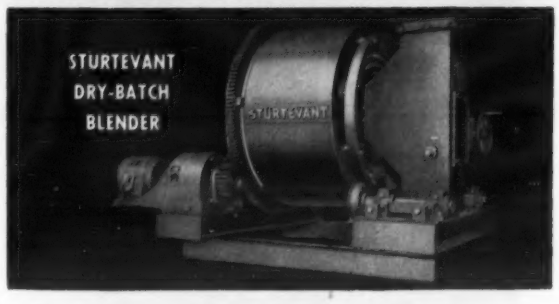
▲ For more details circle NED-616 B7 on enclosed inquiry slip ▲

AUTOMATIC GAGING DEVICE
combined with machine control

Multiple automatic gaging and feedback machine control are combined in a single unit in the Multi-Feedback. It has a set of gage tooling and provisions for receiving and measuring precision parts from each of a series of machines. Individual parts are conveyed through the automatic gaging control system. Electrical gage signals received from the part are transmitted to the machine that produced the part and used to stop or correct it if it produces a predetermined number of reject parts. Acceptable parts can also be segregated into individual lanes or chutes corresponding to various classifications of parts produced. Installations can control up to 20 machines. Made by **Sheffield Corp.,** Autometrology Div., 721 Springfield St., Dayton 1, O.

▲ For more details circle NED-617 B7 on enclosed inquiry slip ▲

BLENDING COSTS cut 2 ways!



1. PRODUCTION SPEEDED UP BY 4-WAY MIXING
2. SHUT-DOWNS SHORTENED BY "OPEN-DOOR" DESIGN

Batches from 500 to 40,000 pounds are completely blended regardless of varying weights, densities or fineness of different ingredients. No dust loss!

Four different vertical and lateral mixing actions do the job in minimum time. Single lever control of single gate speeds loading and discharging.

"Open-Door" accessibility for quick, easy cleaning and maintenance *plus* 75-year-tested rugged construction add up to more output per machine-year.

Write for Bulletins on Sturtevant Batch Blenders and other custom-built equipment listed below. STURTEVANT MILL CO., 114 CLAYTON ST., BOSTON 22, MASS.

STURTEVANT
Dry Processing Equipment
The "OPEN-DOOR" to *lower* operating costs over *more* years
CRUSHERS • GRINDERS • MICRON-GRINDERS • SEPARATORS
BLENDERS • GRANULATORS • CONVEYORS • ELEVATORS

▲ For more details circle NED-618 B7 on enclosed inquiry slip ▲

REED *the Better* **CHAIN VISE**

Modern vise has handle positioned so that it swings above bench level for tightening. Chain drops into position and locks automatically on all pipe sizes. Hardened, replaceable vise jaws have three faces for triple life. Vise mounts solidly on bench, 50% closer to edge with full 6 inches or more bearing on edge. Reed exclusive roller pulley provides maximum chain contact. This really solid vise is easier, faster and more convenient . . . does away with fumbling and skinned knuckles. Reed presents performance advantages never before incorporated in any chain vise design.

ASK YOUR SUPPLIER OR WRITE FOR FREE LITERATURE.

REED MANUFACTURING COMPANY ERIE • PENNSYLVANIA, U. S. A.

▲ For more details circle NED-619 B7 on enclosed inquiry slip ▲

"RODGERS PLATEN PRESS GIVES US *FAST CYCLING* WITH *COMPLETE SAFETY*"

—SAYS VEIT AND YOUNG

Rodgers 400-ton platen press in use at Veit and Young, Huntington Valley, Pa., metalworking specialists. The press is equipped with die cushion, fast cycling cylinders and other accessories. Some of the products formed are stacked by the press.

Production has been increased in drawing and forming large serving trays and electrical panels by Veit and Young with their Rodgers Platen Press. Safety controls permit operators to concentrate on speed and accuracy. They are working type 303 stainless steel, brass, carbon steel, aluminum—from ⅛" to ⅛" thick with bends up to 90°.

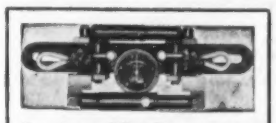
Auxiliary cylinders lower and raise platen quickly for fast cycling. Forming pressures are pre-set from 80 to 400 tons—die cushion up to 50 tons. Simple, fast adjustments govern all platen, pressure and time cycles. If you work in metal, plastic, rubber, veneers—you can mold, draw, form—*faster* with a Rodgers Platen Press. Capacities 10 to 600 tons. Send for Rodgers "Blue Ribbon" Platen Press Catalog.

Rodgers Hydraulic Inc.
7425 WALKER STREET • MINNEAPOLIS 26, MINN.

▲ For more details circle NED-620 B7 on enclosed inquiry slip ▲

DILLON DYNAMOMETERS can solve your tension or stress problems

The perfect instrument for indicating tension or stress in cable, rope, castings, assemblies, etc.—in field or laboratory. Easy to use in close quarters—measures 8¼" x 6¼" x 3", weighs only 8 lbs. 4 oz. Not injured by accidental overload. Has safety glass cover and maximum hand. 500 to 100,000 lb. capacities. Low cost. Immediate shipment.



By using a Dillon Dynamometer in this special draw-bar arrangement, the Ruth Company, Denver, Colorado, manufacturers of mining locomotives, has proved a money-saving point. They found that locomotive horsepower—not weight—is the all-important factor in achieving economical mine haulage. Result: thousands of dollars saved in several mines!

Write today for illustrated bulletin

W. C. Dillon & Co., Inc.

14578NE Keswick St., Van Nuys 1, Calif.
"suburb of Los Angeles"

▲ For more details circle NED-621 B7 on enclosed inquiry slip ▲

SUPER MARKET SHOPPING FOR CUSTOMIZED CONVEYORS WITH MAY-FRAN STANDARDIZATION

Developed to provide the ultimate of versatility, the May-Fran program of STANDARDIZATION permits users to create and construct their own conveyors to meet individual needs.

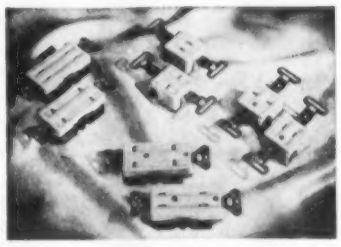
It literally provides a type of "super market" shopping for the straight, curved, inclined, take-up and discharge end sections required to meet the specifications of YOUR job requirements. Sections can be changed relative to length or width with only a minimum of downtime.

Write today . . . ask for a copy of MF Bulletin No. 200

MAY-FRAN ENGINEERING, INC.
1711 Clarkstone Rd. • Cleveland 12, Ohio

▲ For more details circle NED-622 B7 on enclosed inquiry slip ▲

ELECTRICAL RECEPTACLES
two-wire and three-wire types



Holes for back wiring, wire strip gage, large binding screws for conventional side wiring, break-off strip for two-circuit installation and two hexagonal green screws for grounding wire are built into line of Sierraplex electrical wiring receptacles. They are available in three-wire grounding type and two-wire convenience type. Slots are provided for two-wire regular and polarized three-wire caps. Receptacles are encased in arc resistant plastic, offered in ivory or brown with complementary stainless steel, plastic and brass wall plates. All requirements of the National Electric Code and Underwriters' Laboratories are met. Made by **Sierra Electric Corp.**, 15110 S. Figueroa St., Gardena, Calif.

▲ For more details circle NED-623 B7 on enclosed inquiry slip ▲

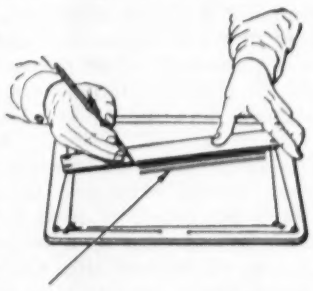
METAL MARKING DEVICE
uses electrochemical etching means

Permanent marking of serial numbers on all metals can be done with this hand operated adjustable numbering device which employs electrochemical etching. Unit uses standard Electromark power unit and has four or more plastic numbering wheels set in stainless steel frame. These are used and adjusted as in a common rubber stamp. Numerals, letters or other characters can be ¼-in. square or smaller. Made by **Electromark Corp.**, Dept. A, 2093 E. Nineteenth St., Cleveland 15, O.

▲ For more details circle NED-624 B7 on enclosed inquiry slip ▲

PORTABLE DRAFTING BOARD
makes accurate scale drawings

Accurate scale drawings can be made anywhere with the Sketch-Faster portable drafting board. Measuring 11 x 13 in., it permits making standard 8½ x 11-in. drawings. Features include center markers and ¼-in. grid, drawing surface of tempered Masonite with Duolux enamel, braided Dacron belt for constant tension and ruling edge milled straight within 0.003-in. Parallel ruling to an accuracy of 0.005-in. is possible. Ruling edge is infinitely adjustable 15 degrees in either direction. Plastic carrying case with room for triangles and accessories is included. Price is $5.00. Made by **Lloyd Tool Corp.**, 1622 N. Broadway, Burbank, Calif.



▲ For more details circle NED-625 B7 on enclosed inquiry slip ▲

COFFEE VENDER
features on-the-spot brewing

Vacuum-packed cans of coffee are brewed on-the-spot by this 900-cup vender. Called infusion brewing, process uses vacuum-sealed ¼-lb cans of regular grind coffee as disposable brewing chambers within the machine. Can is automatically punctured at both ends, and jets of hot water are forced through under pressure. Coffee itself acts as filter, and grounds remain in the throw-away can for easy, sanitary disposal. Vendor holds 54 cans, each of which produces about 16 cups of coffee. Customer presses a button to select cream and sugar. Hot chocolate can also be dispensed by machine. Made by **Vendo Co.**, 7400 E. Twelfth St., Kansas City 26, Mo.

▲ For more details circle NED-626 B7 on enclosed inquiry slip ▲

TRENT Engineering and Design Trouble-Proofs IMMERSION and CIRCULATION HEATING UNITS!

For Efficient Immersion Heating of
• *HOT WATER TANKS* • *WATER BATHS*
• *RINSES AND CLEANERS* • *GLUES AND OILS*

Rugged Trent Water Immersion Heaters are available in a complete range of types and sizes for heavy duty service up to 100 KW in single packaged unit.

Dependable, Trouble-Free Heating for
• *CIRCULATING OIL SYSTEMS*
• *ATOMIZATION* • *HEAT TRANSFER FLUIDS*
• *STORAGE TANK HEATERS*

Heavy duty Trent Oil Immersion Heating Units offer packaged unit design in a range of sizes for service up to 50 KW.

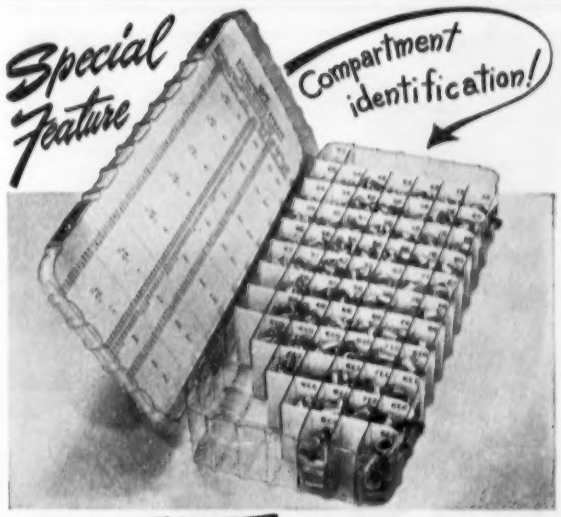
TRENT IMMERSION AND CIRCULATION HEATERS ARE UL AND CSA APPROVED

Let Trent's more than 25 years' manufacturing experience solve your heating problem. Discuss your application with a Trent representative today!

Trent Representatives in Principal Cities Coast to Coast

TRENT INC.
Electrically Heated Industrial Equipment
242 LEVERINGTON AVE., PHILA. 27, PA.

▲ For more details circle NED-627 B7 on enclosed inquiry slip ▲



Lite-TUFF PLASTIC BOXES THAT CAN TAKE ABUSE . . .

made of Non-Flam* light weight plastic. Standard boxes available in a wide variety of compartment arrangements. Very tough, will not crack or shatter in normal use. Resistant to most chemicals—samples supplied for tests.
Full information and PLOT PLAN SHEETS sent upon request . . . Dept. B-18
* Reg. U. S. Pat. Off.

SHOE FORM CO. INC. AUBURN, NEW YORK

▲ For more details circle NED-628 B7 on enclosed inquiry slip ▲

Cramer QUICK-CHANGE CHAIRS

adjust in seconds to fit any worker on the shift, *through quick-acting trouble-free mechanisms that require no tools, just the flick of a finger . . . . .*

ENGINEERED TO PROVIDE THE CORRECT-POSTURE COMFORT THAT BRINGS STEPPED-UP PRODUCTION

Investigate!

Cramer POSTURE CHAIR COMPANY, INC.
Dept. NE27, Charlotte, Kansas City 6, Mo.
Other models available

▲ For more details circle NED-629 B7 on enclosed inquiry slip ▲

Balance Rotating Parts

FASTER...EASIER

No setup, no leveling, no centering. Chilled iron discs, ground and balanced to extreme accuracy, rotate with minimum friction on special bearings. Glass-hard spindles and bearings prevent wear or ball-bearing indentations when balancing heavy weights. Superior accuracy lasts throughout the long life of the balancing ways. Proved and preferred 38 years. For information on sizes, types, and prices of Anderson Ways, write for Bulletin 1-40.

Anderson

Write for Bulletin 1-40

ANDERSON BROS. MFG. CO.
ROCKFORD, ILLINOIS

▲ For more details circle **NED-630 B7** on enclosed inquiry slip ▲

Imagine a mile-wide ball with surface finish accurate to within 1/16"

If Hoover could make this giant bearing ball—one mile in diameter—and maintain Hoover quality of precision manufacture, the immense sphere would be so smooth that surface finish would be accurate to within 1/16 inch!

In actual terms, the surface smoothness of a Hoover Ball is measured on a micro-inch basis. Roundness and diameter are held within 25 millionths of an inch. Microscopic precision, both in smoothness and spherical accuracy, means quality in Hoover *Micro-Velvet* Lapped Balls. A perfectly matched set of *Micro-Velvet* Balls goes in each bearing.

These precision-made balls team up with the ultra-smoothness and minutely exact curvature perfection of famous *Hoover Honed* Raceways.

The result . . . equalized load, high capacity, and quiet operation, assuring superior operating performance and long life.

Investigate Hoover's complete line of balls, made in many metals, as well as light, medium and heavy series ball bearings.

Engineering assistance is available to manufacturers. "Engineer's Handi-Book of Anti-Friction Bearings" analyzes the characteristics of all types of anti-friction bearings. Write for your copy.

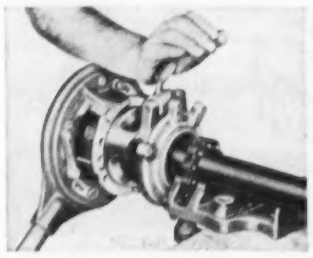
hoover

BALL AND BEARING COMPANY, ANN ARBOR, MICHIGAN

Hoover Honed and *Micro-Velvet* are Hoover Trademarks.

▲ For more details circle **NED-631 B7** on enclosed inquiry slip ▲

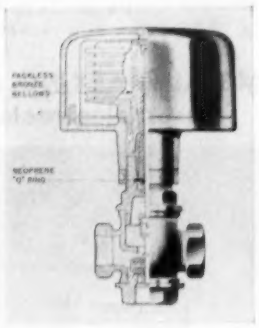
PIPE THREADER
holder assures true threads



Straight, true threads are assured with improved Ridgid 65R pipe threader by a True-Centering workholder, even if pipe is under or over size. Three workholder jaws close simultaneously, and device is readily set to desired pipe size. Unit is also available for use on present 65R die stock for threading 1 to 2-in. pipe or conduit. Made by **Ridge Tool Co.**, 125 Ridge Rd., Elyria, O.

▲ For more details circle **NED-632 B7** on enclosed inquiry slip ▲

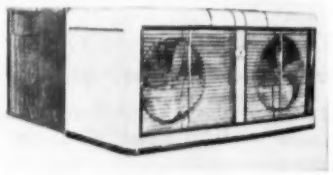
PACKLESS VALVES
design minimizes maintenance



Bronze bellows is primary seal and spring-loaded neoprene O-ring is secondary seal in series of packless pneumatic valves for convectors, unit ventilators, air conditioners and radiators. Design minimizes maintenance cost, eliminates leakage and makes possible precise control. Should the bellows become damaged, the neoprene ring precludes steam or water leakage and vacuum loss. Top is easily removed for bellows replacement without draining the water system or shutting off steam. Made by **Powers Regulator Co.**, Dept. NDC, 3434 Oakton St., Skokie, Ill.

▲ For more details circle **NED-633 B7** on enclosed inquiry slip ▲

AIR CONDITIONER
5-ton unit uses no ducts or water

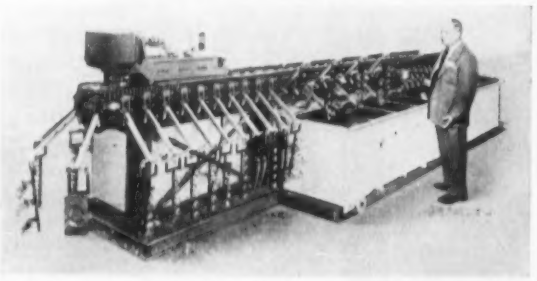


Cooling, air conditioning, ventilating, exhausting and recirculating of air in large open areas can be performed by the Super-Five, a self-contained 5-ton air conditioner. It requires no ductwork or water connections and can bring in any desired percentage of air during operation. Unit measures 61 x 50 x 24 in., mounts horizontally and, when installed in a wall, protrudes only 24 in. into the room. It can also be "split," with the high side condensing unit installed outdoors and the low side evaporator section suspended from the ceiling. Condensate is pumped to a drain if necessary. Air conditioner is controlled by a four-way thermostat. Made by **Aug. G. Barkow Mfg. Co.**, 2231 S. 43rd St., Milwaukee, Wis.

▲ For more details circle **NED-634 B7** on enclosed inquiry slip ▲

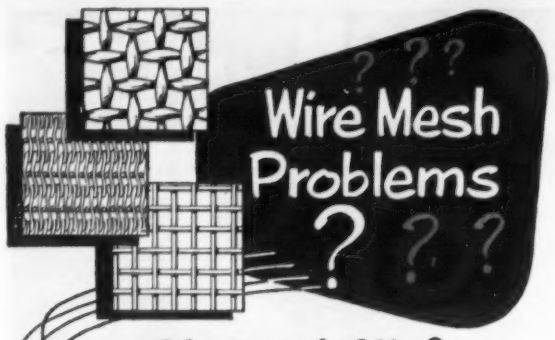
AUTOMATIC PLATING MACHINE
handles small and medium size parts

Compact Little Steve automatic plating and processing machine will production plate electrical parts, door hardware, plumbing fixtures, small appliances



and other small and medium size parts. It will also finish larger parts that do not require high production. Machine measures 7 ft wide and about 10 ft long, and is well suited for anodizing or other electrochemical immersion processes. Packaged unit can be installed within a few hours. Carrier arm functions as a holder for small individual racks; as a rack with small parts attached to it; or it can act as a rack with arms racked rapidly on and off the carrier arm bracket. Made by **Frederic B. Stevens, Inc.**, 1802 Eighteenth St., Detroit 16, Mich.

▲ For more details circle **NED-635 B7** on enclosed inquiry slip ▲



Choice of Alloy?
Available in Aluminum, Brass, Bronze, Copper, Inconel, Monel, Nickel and Stainless Steel.

Choice of Mesh?
All standard weaves including twilled, corduroy, calendered, etc.

Stock Sizes?
36" wide rolls in sizes from 2 to 200 mesh (2 to 24 in Aluminum).

Fabricated Parts?
To your specs—send print or sample.

Made by C. O. Jelliff Co. quality manufacturers for more than 75 years. Write or call your nearest Whitehead office for our free wire mesh bulletin.

WHITEHEAD METAL PRODUCTS COMPANY, INC.
303 WEST 10TH STREET
NEW YORK 14, N.Y.

Other Offices and Warehouses
PHILADELPHIA • BUFFALO • CAMBRIDGE, MASS. • SYRACUSE • BALTIMORE
HARRISON, N. J.

▲ For more details circle **NED-636 B7** on enclosed inquiry slip ▲

New! **S-N**

MODEL 5201 HEAVY-DUTY REVERSING TRANSMISSION

Model 5201 combines forward—neutral—reverse—reduction in a single compact unit handling up to 28 HP. Reverses smoothly, under full load if needed. Reduction ratio 3.16:1 in both directions. Maximum input torque 1000 lb. in. Maximum input speed 2000 RPM.

Write for technical literature.

SNOW-NABSTEDT
Transmission Engineers
FOR HALF A CENTURY
"MAKERS OF JOE'S GEARS"
THE SNOW-NABSTEDT GEAR CORP. HAMDEN, CONN.

▲ For more details circle **NED-637 B7** on enclosed inquiry slip ▲

HARGRAVE Tested Tools
THE CINCINNATI TOOL COMPANY

HARGRAVE
THE MOST COMPLETE LINE
Individually Power-Tested

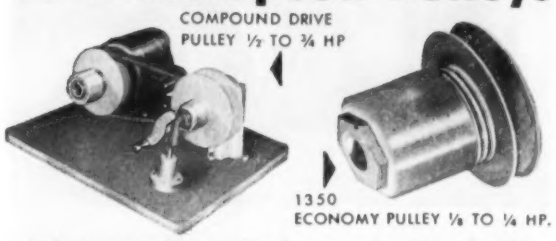
WRITE FOR FREE CATALOG
Showing a Clamp for every purpose, openings from 3/4" to 12 and depth from 11/16" to 16", also Chisels, Punches, Masonry Drills, Gasket Cutters, Brace Wrenches, File Cleaners, etc.
There is an Industrial Distributor Stock Near You

THE CINCINNATI TOOL COMPANY
1995 Waverly Ave., Cincinnati 12, Ohio

▲ For more details circle **NED-638 B7** on enclosed inquiry slip ▲

Lovejoy Fractional Horsepower

Variable Speed Pulleys



ECONOMICAL—low in initial cost . . . easily installed on old or new equipment.

MINIMUM MAINTENANCE—simple construction assures trouble-free operation . . . lifetime lubricated with oil-impregnated bronze bushings.

CONSTANT BELT ALIGNMENT—inner and outer pulley sheaves open equally to provide smooth, infinitely variable speed ratios to 8 to 1.

NO SLIPPAGE—Sure grip of belt sides delivers full traction under all load conditions . . . result is greater horsepower carry capacity.

Get the new 12-page Lovejoy catalog! Write today.

LOVEJOY FLEXIBLE COUPLING CO.
4803 W. Lake St. • Chicago 44, Ill.

For more details circle NED-639 B7 on enclosed inquiry slip

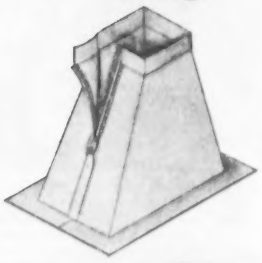
PROTECTED by GORTITE

SLEEVES

1 or 1000 without molds

BOOTS

for dirt exclusion and lubricant retention



WAY-PROTECTORS

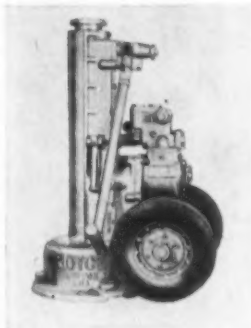
high maximums low minimums

GORTITE is the new pliable protection that's fabricated from (neoprene-base) materials: Zippers speed-up installation and special coatings prolong life. All GORTITE parts flex normally on their convolutions at temperatures −40° f., to 220° f., without cracking and thereby overcome the weaknesses of leather. Design layouts and cost estimates mailed promptly as detailed in bulletin SPC-2.

A&A Mfg. Company Inc.
2017 W. Clybourn St. • Milwaukee 3, Wis.

For more details circle NED-640 B7 on enclosed inquiry slip

AIR MOTOR JACKS
20 and 35-ton models



Light in weight and mounted on large semipneumatic tires, model 1720-R and 1735-R air motor jacks have 20 and 35-ton capacity, respectively. They incorporate toe lift for handling low loads, pressure lubrication of parts, tin-bronze and anti-friction bearings, and air motors with integral air line lubrication. Jacks shut off automatically at end of rise and cannot be overloaded. Made by **Joyce-Cridland Co.**, 2222 E. First St., Dayton 3, O.

For more details circle NED-641 B7 on enclosed inquiry slip

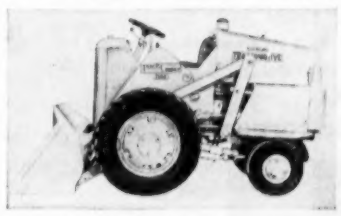
CENTER FINDER
fits chuck of various machines

Battery-powered Wiggler center finding device fits into the chuck of a lathe, drill press, jig borer or other machine, enabling the operator to accurately

locate the blueprint co-ordinates of the workpiece. Electrical contact lights a bulb continuously when the work is properly positioned. One-piece noncorrosive unit uses standard batteries for power. Made by **Armand Products, Inc.**, Dept. W-1, 20 W. Morrill Ave., Columbus 7, O.

For more details circle NED-642 B7 on enclosed inquiry slip

TRACTOR LOADER
diesel engine is optional equipment



Power steering and combination clutch type transmission and torque converter drive with two speeds forward and reverse are features of the ½-cu yd TL-6 Tracto-Loader, now offered with an optional diesel engine as model TL-6D. The Buda 4DA153 four-cylinder, four-cycle, solid injection engine develops 38 hp at governed speed of 1900 rpm. It has compression ignition for starting and running, with ether priming as standard and electrical preheating as optional. Single clutch lever is moved forward and back for forward and reverse travel. The ½-cu yd bucket can be tipped back 22 degrees at ground level. Turning radius is 6 ft 8 in. Made by **Tractomotive Corp.**, Dept. NED, Deerfield, Ill.

For more details circle NED-643 B7 on enclosed inquiry slip

MONEY in this "BANK" for YOU!

A bank of Clippard Miniature Three-Way Air Valves (MAV-3) like this, cycled with Clippard Miniature Pneumatic Cylinders, Manifolds, Fittings and Accessories for automatic or semi-automatic work functions can produce immediately BANKABLE dollars and cents for you thru faster, better, more profitable output!

Clippard Miniature Pneumatic Devices are small in size, easy to mount and as versatile as your imagination. They are ruggedly made for millions of cycles of trouble-free operation, yet are surprisingly low in cost.

Keep a supply of Clippard pneumatic components on hand in your stockroom to lick that next automatic control, work feeding or holding operation on a moment's notice. Write NOW for free literature and attractive prices.

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7370-N Colerain Road, Cincinnati 24, Ohio
Manufacturers of R.F. Coils, Electronic Equipment, Miniature Pneumatic Devices

For more details circle NED-644 B7 on enclosed inquiry slip

DOLE controls can give you Automatic Operation

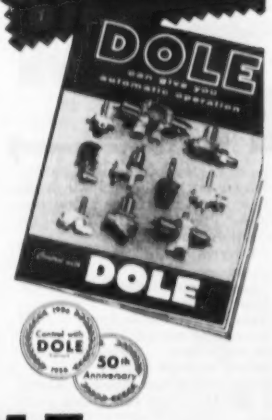
If you manufacture equipment where the control of temperature and flow is important, Dole Controls may offer you a simple, economical method of obtaining automatic operation.

Here are practical applications for the time-tested, high-quality Dole Automatic Controls on:

- Home Laundry Machines
- Home Dishwashers
- Drink Dispensers
- Ice Cube Makers
- Coffee Makers
- and many others

If you have any problem where automatic control is important, send for this book. Dole engineers will work with you on any specific problem.

Send for this New Book



Control with

DOLE
TRADE MARK

The DOLE Valve Company
1901 Carroll Avenue, Chicago 12, Illinois

For more details circle NED-645 B7 on enclosed inquiry slip

With Safe-Q-Lube and Loadless Starting

Exclusive patented systems unloads compressor in event of low oil pressure. Safe-Q-Lube system and Loadless Starting provide smooth, free-rolling stops. Standard equipment on most models. 21 models to choose from, 1 to 90 CFM. Service from coast to coast through more than one hundred authorized depots.
Write Dept. NED-52 today for detailed brochure.

QUINCY COMPRESSOR CO., QUINCY, ILL.

For more details circle NED-646 B7 on enclosed inquiry slip

Gage small parts quickly and economically with the KODAK CONTOUR PROJECTOR, Model 8

Here's a portable, bench-type comparator that gives you the speed, economy, and precision of optical gaging at moderate cost. With little training, operators can inspect all sorts of stampings, screw machine and similar parts completely, accurately, and quickly.

The Model 8 can be used for either vertical or horizontal projection with the shadow image always erect and right-reading. Interchangeable lenses give a choice of any of six for magnifications from 10× to 100×.

For details on the Kodak Contour Projector, Model 8, and how you can use it, send for the booklet, "Projection Gaging with Kodak Contour Projectors." Write *Apparatus and Optical Division.*

EASTMAN KODAK COMPANY
Rochester 4, N. Y.

the KODAK CONTOUR PROJECTOR

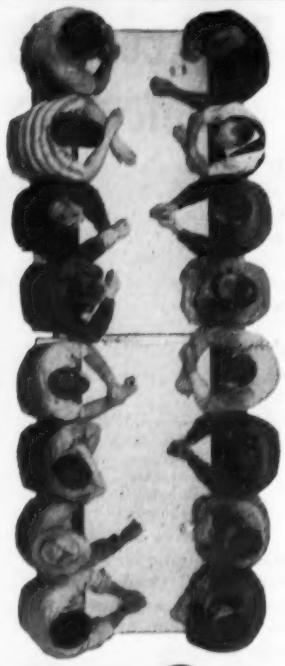
Kodak

For more details circle NED-647 B7 on enclosed inquiry slip

free booklet

helps you get more for your table-space dollar.

SICO table-bench seats **16** folds in seconds!



Now solve your space and seating problems with the SICO system—a complete line of folding tables. The Model B-Y (illustrated) features:

- "Floating Fold", for *safe, one-man* operation
- Steel frame, lustron plated for lifetime beauty
- Beautiful plastic top . . . no cracks or seams
- Easy rolling . . . requires minimum storage space

Choose from a complete line, there are SICO tables for every purpose . . . to solve every space and seating problem.

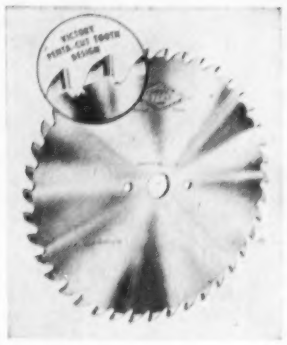
Write for your free booklet—it shows how the SICO System saves you money, gives you *extra* floor space in your plant!

SICO

manufacturing company, inc.
Dept. 509 • 5215 Eden Ave. South
Minneapolis 24, Minnesota

For more details circle NED-648 B7 on enclosed inquiry slip

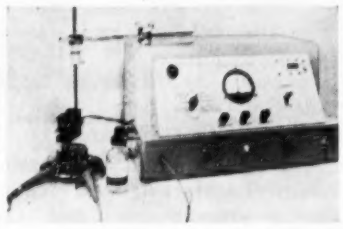
CARBIDE-TIPPED SAW
for cool cutting nonferrous metals



Alternate (male and female) design of carbide tipped teeth of Penta-Cut circular saw blades provides five cutting edges in every set of two teeth. Male tooth has a slightly wider kerf (0.007-in.) for planing or shaving action on the side of the material. Developed for nonferrous metals, saw is cool and clean cutting and operates without gumming or burning. It can be machine sharpened as all cutting edges are on the same periphery. Blades are offered in 12, 16, 18 and 20-in. diameters. Made by **Victory Carbide Saw & Tool Co.,** Dept. NED, 3856 N. Ashland Ave., Chicago 13, Ill.

For more details circle NED-651 B7 on enclosed inquiry slip

COATING THICKNESS TESTER
accurate to within 90-95 per cent



Model 955 electronic thickness tester directly indicates thickness of plating and other metallic coatings on metals and nonmetallic base materials. Accuracy is within 90 to 95 per cent. Thickness of decorative and heavy chromium, silver, tin, cadmium, zinc, copper, brass, nickel, lead, lead-tin and tin-zinc alloys can be determined on steel, copper, brass, aluminum and other metals, and on ceramics and plastics. Calibration adjustment automatically corrects high or low readings. Constant pressure device maintains uniform pressure between test cell and specimen. Made by **Kocour Co.,** Dept. G-1, 4800 S. St. Louis Ave., Chicago 32, Ill.

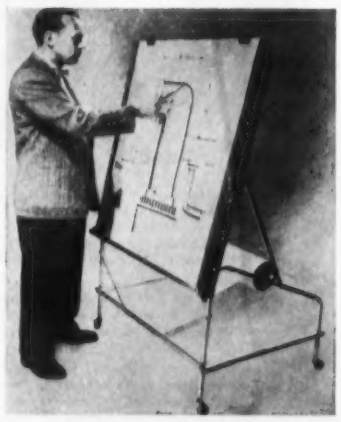
For more details circle NED-652 B7 on enclosed inquiry slip

FLATBED TRUCK
has hydraulic torque converter

Top speed of 12 mph and a 1½-ton capacity are incorporated in this hydraulic torque converter-equipped flatbed industrial truck. It has a 15-hp air-cooled Wisconsin engine and electric starting, direct coupled to a transmission consisting of a three-element converter and directional change clutches. Smooth starts and acceleration eliminate load spillage and shifting. Available flatbeds are 42 x 42 in. and 42 x 60 in. Also offered is an interchangeable 18 cu ft bulk handling bed and special beds to specifications. Made by **Prime-Mover Co.,** Third & Oak Sts., Muscatine, Iowa.

For more details circle NED-653 B7 on enclosed inquiry slip

LARGE EASEL-TABLE
writing surface fed by paper roll



Writing surface of this large Roll-Easel is provided by 36-in. wide roll of white paper on base of smooth Masonite Tempered Presdwood. Device can be used as a "blackboard" for the industrial classroom, movie screen or writing and working surface when converted to a table. Wheels lock into position. Guide line may be ruled on easel surface to show through paper. Unit's surface, either paper covered or plain, makes a 40 x 44-in. table. Distributed by **Educators Furniture & Supply Co.,** 5912 R St., Sacramento, Calif.

For more details circle NED-654 B7 on enclosed inquiry slip

Hackney deep drawn shapes . . .

. . . often specified for replacing a heavy forged, cast or welded-pipe part with a seamless, lightweight shell. Shapes can be cylindrical, spherical, conical or tapered. Capacities from 1 qt. to 70 gal. Flanges, openings, fittings as you specify. Send a sketch of what you have in mind. Our experienced engineers are ready to work with you.

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Pressed Steel Tank Company
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Downingtown Iron Works, Inc., Division, 155 Wallace Ave., Downingtown, Pennsylvania

CONTAINERS AND PRESSURE VESSELS FOR GASES, LIQUIDS AND SOLIDS

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WE USE LABELON TO MARK STORAGE AND STOCK BINS, TAG TOOLS, INDICATE REPAIRS AND SERVICE WORK

WON'T SMUDGE • RESISTS: DIRT GREASE WATER ACIDS

STICKS WITHOUT MOISTENING

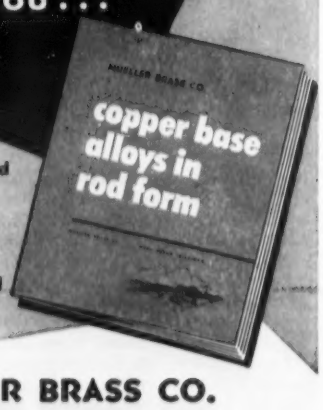
LABELON'S PERFECT FOR OFFICE FILES, FOLDERS AND DRAWERS . . . AND THEY SWEAR BY IT IN THE LABORATORY

For samples and prices, see your nearest dealer or write Dept. NED-2

LABELON TAPE CO., INC.
450 Atlantic Ave., Rochester 9, N. Y.

For more details circle NED-649 B7 on enclosed inquiry slip

new RED TIP S-C* rod can cut costs for you . . .



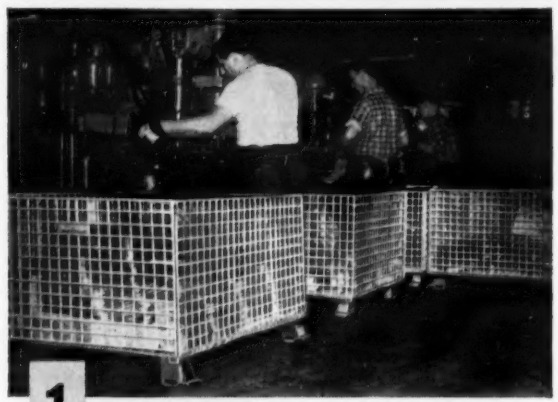
"*"super-cutting" rod produced semi-continuously available only from the MUELLER BRASS CO. . . . send for complete manual*

MUELLER BRASS CO.
PORT HURON 37, MICHIGAN

194

please send me a copy of your
ENGINEERING MANUAL FM-3010
NAME
COMPANY
ADDRESS

For more details circle NED-650 B7 on enclosed inquiry slip



1 *For safe, clean, simplified handling of parts between successive production stages. Contents always accessible, visible—protected.*

HOW PALLETAINERS® can help your *management* cut Costs . . .

2 *Palletainers save time in the shipping department, increase safe truck and rail loading capacities and eliminate transit damage. For return shipment or storage, folded Palletainers save 75% of space and receive lowest freight rates.*

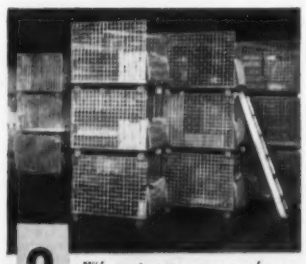
If you store, process or ship materials of *any* kind . . . *You need Palletainers.**

Because . . . Palletainers provide fast, efficient low cost unit handling!

Because . . . Palletainers reinforced construction makes them almost indestructible.

Because . . . There's a size, capacity and type to match every conceivable need.

Because . . . It's "profit-wise" to keep materials, parts and finished products moving efficiently and economically . . . through production, temporary storage, in-plant transport or long distance hauling.



3 *When storage or warehouse space is at a premium, look to Palletainers. They'll stack to the roof with safety and you can inventory their contents at a glance!*

It will pay you to investigate USP Palletainers . . . they'll help you cut costs where they really count!

The Palletainers you purchase today will quickly pay for themselves in man hour and equipment savings. Put them to work today.

Fluid loads? Sure . . . Bulk Lode Palletainers equipped with heavy duty liners simplify all fluid load handling.

mhi

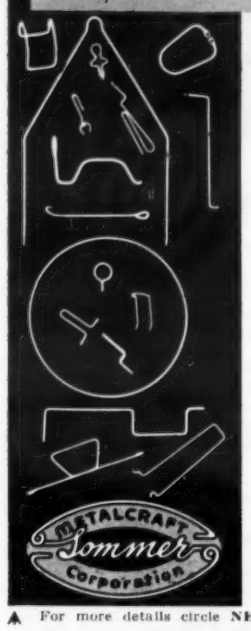
USP

WRITE—WIRE OR PHONE

UNION STEEL PRODUCTS CO.
Albion, Michigan

For more details circle NED-656 B7 on enclosed inquiry slip

WIRE PARTS and PRODUCTS
Fast . . . Accurate . . . Low Cost



The forms shown here are only a few we make. They indicate our broad experience with different shapes, materials, finishes, welds.

Automatic wire-forming machines produce precision work on a volume basis at competitive prices, and speed up deliveries.

Finishes include baked enamel, cadmium, brite zinc, brite nickel, nickel chrome and mill finishes —in both barrel and fully automatic equipment.

Inquiries are invited and will be answered promptly. Send sample, blueprint or drawing. We will submit recommendations and quotations without delay.

SOMMER
METALCRAFT CORPORATION
200 POSTON DRIVE
CRAWFORDSVILLE, INDIANA

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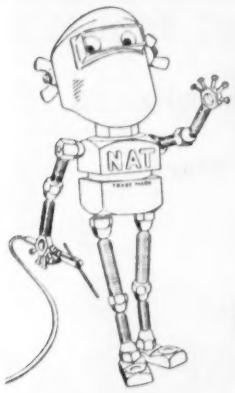

"NAT" KNOWS

STANDARD

SPECIAL

WELDING FASTENERS

Standard or special, "Nat" can tell you all about projection welding fasteners. National's complete, high quality line of standard weld screws, pins and nuts gives you maximum strength and 100% optimum welds . . . even on materials .030 to ¼ inch thick.

Bring your welding fastener problems to National. Besides offering a satisfactory solution, we will design any *special* welding fastener you may need.

Write for National Welding Fasteners catalog. It shows "Nat's" complete welding line.

THE NATIONAL SCREW & MFG. COMPANY
CLEVELAND 4, OHIO
Pacific Coast: National Screw & Mfg. Co. of Cal.
3423 South Garfield Ave., Los Angeles 22, Cal.

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ALNOR PYROCONS

The Alnor Pyrocon combines laboratory precision with production tool ruggedness to give you fast, accurate answers to all surface temperature problems. It takes just 3 seconds to give you the temperature of any surface . . . regardless of shape or material . . . revolving or stationary. And the heavy, shock-resisting movement is housed in a balanced unit that's compact, easy to handle.

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PRECISION INSTRUMENTS FOR EVERY INDUSTRY

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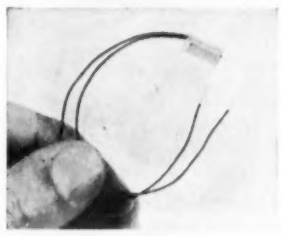
TOILET PLUNGER
fits any size or shape bowl

Stubborn obstructions are quickly cleared with the Toilaflex toilet plunger which features accordion action that allows it to bend to fit any shape or size toilet bowl trap. Its suction grooved lip forms an air-tight seal so that its large air chamber can force a large volume of compressed air to clear the obstruction. The all-angle plunger allows no air or water to escape to decrease pressure. Price is $2.65. Made by **Water Master Co.,** Dept. N211, New Brunswick, N. J.

▲ For more details circle NED-660 B7 on enclosed inquiry slip ▲

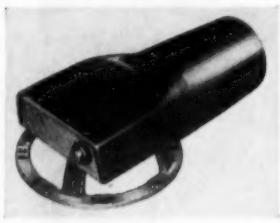
TEMPERATURE RESISTOR
applied to any surface by tape



Sensing element of Tape-On surface temperature resistor is attached to any surface by a small piece of Mylar tape. Having an output up to 5 v without amplification, the devices can be used directly in a commutation circuit to modulate standard telemetering transmitters. Resistance change over the specified temperature range is 100 ohms. Various ranges from −300 to 400° F are available. Resistors have two 6-in. long Fiberglas-covered constantan leads, ¼ x 5/16-in. size and accuracy of ±2 per cent of full scale range. Made by **Trans-Sonics, Inc.,** Box 328, Lexington 73, Mass.

▲ For more details circle NED-661 B7 on enclosed inquiry slip ▲

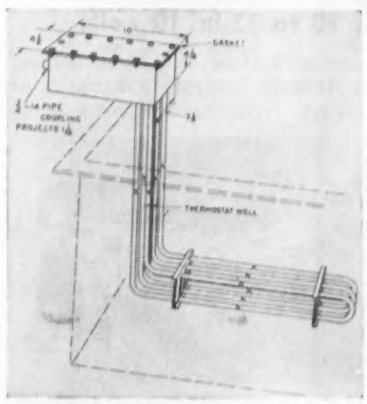
ELECTRIC STARTER SYSTEM
for two and four-cycle engines



Designed for either 12-v battery or 110-v ac operation, this pushbutton operated electric starter system for small two and four-cycle gasoline engines will operate with almost all of the leading engines available. It can also replace rewind starters on units already in the field. Battery-operated system has a charging unit that operates on any 110-v ac source. The 10 ampere-hour battery provides power for 150 or more normal starts without recharging. The compact direct gear drive uses Spiroid gearing. Unit requires about 5 x 9 x 4 in. for mounting. Made by **Fairbanks, Morse & Co.,** Magneto Div., Beloit, Wis.

▲ For more details circle NED-662 B7 on enclosed inquiry slip ▲

IMMERSION HEATERS
heat various materials in tanks



Water, water solutions, oil, asphalt, tar, wax, paraffin and alkali solutions are among those materials which can be heated by series of tubular immersion heaters. Designed for electroplating, alkali cleaning and other types of tanks, the single and three phase units have two and three tubular elements, respectively. Elements are brazed to a gasketed, liquid-tight terminal box. Standard models have sheaths of copper, steel, stainless steel or alloy. Vertical lengths range from 18 to 36 in. and horizontal sections from 9 to 53 in. Operation is on 120, 240, 480 and 550 v. Optional thermostat and protecting well offer control between 60 and 250° F or 200 and 550° F. Made by **Vulcan Electric Co.,** Dept. P, 85 Holten St., Danvers 7, Mass.

▲ For more details circle NED-663 B7 on enclosed inquiry slip ▲

▲ For more details circle NED-664 B7 on enclosed inquiry slip ▲

Renewable "BONNET SAVER" BUSHING

takes the wear —multiplies the service life

Designed for EXTRA VALUE in every part

- Perfect-grip handwheel
- Rugged, high-tensile bronze spindle
- Heavy duty bonnet and packing box assembly
- Renewable bonnet-saver bushing
- Extra-wide reversible bronze wedge
- Self-aligning body-bonnet safety joint, with asbestos gasket seal
- Heavy duty body
- U-Bolt of high-tensile steel
- Bronze seat rings, expanded in body

Iron Body Bronze Mounted or Iron Body With Type 316 Stainless Steel Trim

Screwed
¼" to 2" — 150 PSI Steam, 225 PSI O.W.G.
2½" to 3" — 125 PSI Steam, 175 PSI O.W.G.

Flanged
1½" to 2" — 125 PSI Steam, 200 PSI O.W.G.
2½" to 3" — 125 PSI Steam, 175 PSI O.W.G.

All Iron
Screwed or Flanged
In a full range of sizes for 225,200 and 175 PSI O.W.G.

The renewable Bonnet-Saver-Bushing can be replaced when operating threads become worn, restoring the entire bonnet to its original efficiency. Removable bushing also simplifies cleaning of bonnet. Compare — check all the features that make Jenkins U-Bolt Gate the favorite where punishing services demand extra endurance and easy maintenance. Jenkins Bros., 100 Park Ave., New York 17.

Call your local Jenkins Valve Distributor for complete information.

JENKINS VALVES
LOOK FOR THE JENKINS DIAMOND TRADE JENKINS MARK ®
Jenkins Bros

▲ For more details circle NED-665 B7 on enclosed inquiry slip ▲

Get them NOW
GUARDIAN®
Industrial Controls
for prototype units and initial production requirements

Off the Shelf at your nearby GUARDIAN franchised distributor in the U.S. & Canada

FRANCHISED DISTRIBUTOR

GUARDIAN STEPPERS
SIMPLIFY YOUR CIRCUIT | REDUCE WIRING

write for Guardian Bulletin SD-11

Power Relays
• INTERCHANGEABLE COIL
• NO SOLDER CONNECTIONS REQUIRED!
Built to U/L specifications

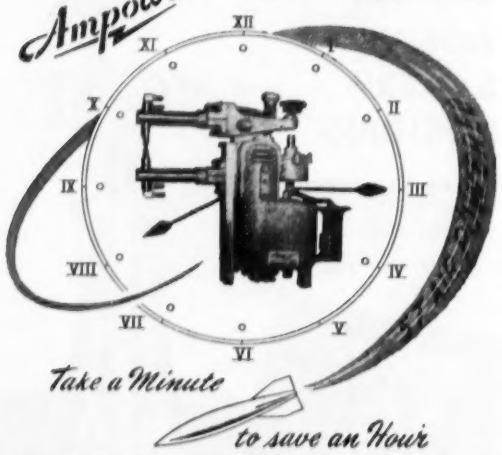
Series 1200 Relays available in a variety of voltages

write for name and address of your nearby Guardian Franchised Distributor

GUARDIAN ELECTRIC
1626-B W. WALNUT STREET CHICAGO 12, ILLINOIS
"Everything Under Control"

For more details circle NED-666 B7 on enclosed inquiry slip

Ampower NEW MODEL 57



Take a Minute to save an Hour

Model 57: Production Resistance Welder
220-240 V. 60 C. A. C. Single Phase
• Air operated (foot or hand)
• Electronically controlled.
• Production rate on c.r.s. with 1/8" comb. thickness.
• Throat opening 3-11½".
• Portable (wt. 58 lbs.)
• Water cooled.
• Throat depth 6-18".

For further information see your local distributor or write

AMPOWER PRODUCTS CO.
MANUFACTURERS OF THE ORIGINAL AND ONLY AMPOWER WELDERS
P. O. Box 464 Oak Lawn, Ill.

For more details circle NED-667 B7 on enclosed inquiry slip

At Last... Positive Protection Against Paint Spray

with the New FLEX-A-PRENE PAINT MASK

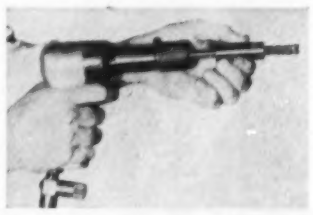
New Efficiency
The sensational new FLEX-A-PRENE Paint Mask keeps out paint pigments and solvents with amazing efficiency, yet it's light (just 1 ounce), comfortable and so easy to talk and breathe through you hardly know you're wearing it.

New Economy
FLEX-A-PRENE's low first cost is only part of the story. Most important savings come from its endurance in service and time saved through less frequent filter replacements. You can expect at least 100 hours of exposure before filter replacement is necessary.

Sample: $1.50 postpaid
(INDUSTRIAL PRICE ONLY)
FLEXO PRODUCTS, INC. Cleveland 13, Ohio

For more details circle NED-668 B7 on enclosed inquiry slip

PIN DRIVING TOOL
fits standard air riveters



Pins and dowels can be driven to desired depth, flush, over-flush or countersunk with this spring pin driver which will fit all standard air riveters. Unit holds the pin to prevent smashing fingers. Drivers are offered in sizes for pins from 1/8 to 1/2-in. OD with 5-in. shanks. By removing finder, driver can be used to drive pins out without marring work surface of material. Made by **Air Tool Equipment,** Dept. P.D.-17, 23 Pearl St., Metuchen, N. J.

For more details circle NED-669 B7 on enclosed inquiry slip

TWO-WHEEL TRACTOR
has no-clutch drive, 6.6-hp engine

Two levers, one for throttling and the other for positioning the Versa-Matic no-clutch drive, control the model 15FH heavy duty two-wheel walking tractor. It has a 6.6-hp Kohler engine which, through the drive, permits speeds from 1.1 to 3.3 mph forward and up to 1.8 mph, reverse. Wheels have needle bearings to withstand side thrusts. Attachments available include lawn roller, drive and weed cutter, rotary Sno-caster, combination snow plow-grader blade, rotary mower, sickle-bar mower, reel type mower, dump cart and riding sulky. Made by **Food Machinery & Chemical Corp.,** Bolens Products Div., 247 S. Park St., Port Washington, Wis.

For more details circle NED-670 B7 on enclosed inquiry slip

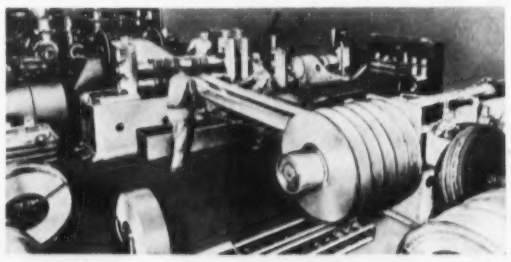
PANEL METERS
easily read without extra lighting

Transparent plastic cases with standard size and mounting provisions make it possible to read Waters/GAR type PS-250 panel meters in room lighting. Stock models, which use D'Arsonval type movements, include dc microammeters, milliammeters, ammeters, millivoltmeters and voltmeters, and ac (rectifier type) microammeters, milliammeters, and voltmeters. Standard accuracy is 2 per cent of full scale. Custom instruments with special scales, graduations, ranges, colors and trade marks can be furnished. Made by **Waters Mfg., Inc.,** Dept. NED, Box 368, South Sudbury, Mass.

For more details circle NED-671 B7 on enclosed inquiry slip

72-IN. SLITTING LINE
for slitting and cut-to-length lines adjusts for 10 to 32-in. ID coils

Payoff cone type uncoiler reel of this 72-in. slitting line has adjustable tension control, automatic or semiautomatic lateral adjustment and capacity of 10

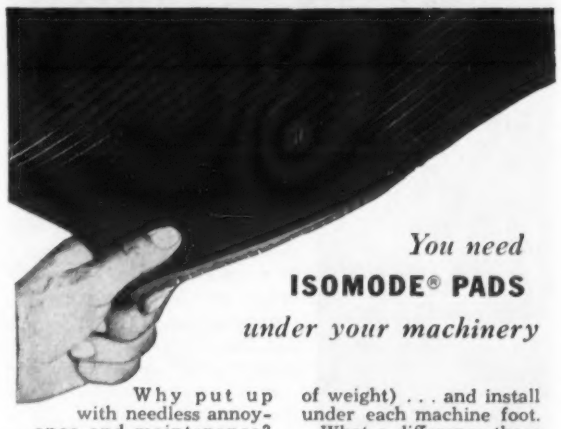


to 32-in. inside coil diameters. Threading motor on the uncoiler reel is reversible.

Outboard bearing on the slitter is easily removed and top and bottom mandrels are accessible for fast tooling changes. Power or pull-through drives are optional. All pass lines are made to specifications, and edge trimming scrap can be either chopped or balled. Recoilers are designed for optional ac or dc drive and function with hydraulically actuated or disk separators. Made by **Universal Gear & Machine Co.,** 1303 E. McNichols Rd., Detroit 3, Mich.

For more details circle NED-672 B7 on enclosed inquiry slip

Noise? Vibration?



You need ISOMODE® PADS under your machinery

Why put up with needless annoyance and maintenance? Isomode Pads swallow up vibration from machines, absorb shock, cut down noise. Nothing to it. Just cut what you need from a standard 18" x 18" neoprene Isomode Pad (use 1 sq. in. for each 50 pounds of weight) . . . and install under each machine foot.

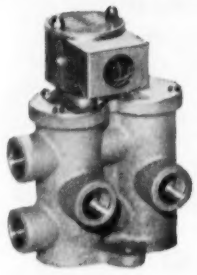
What a difference these Pads make! No lagging needed. You save floor, building and machine maintenance. And all at a low cost that'll surprise you. Try a package and see.

Also available as a leveling mount. Send for details.

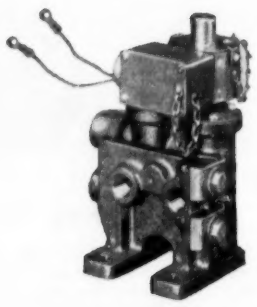
MB manufacturing company
A DIVISION OF TEXTRON INC.
1066 State Street, New Haven 11, Conn.

For more details circle NED-673 B7 on enclosed inquiry slip

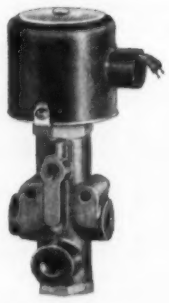
YOUR COIL BURNOUT TROUBLES ARE OVER when you switch to Crescent® Solenoid Valves



Standard 4-Way



J.I.C. Type 4-Way



Standard 3-Way

® 4-Way and 3-Way Solenoid operated, pilot controlled valves for Air, Water and light oil to 150 P.S.I., products of Crescent Valve Co.

NO COIL BURNOUT
because a generous power margin, short solenoid travel and pilot operation combine to prevent overheating and overloading. Note that these valves are accepted and used in automotive plants where assembly line production does not permit coil or valve failure.

LONG SERVICE LIFE
Main valve design is aimed at extremely long trouble free service. Resilient seats are tight sealing and are not affected or damaged by dirt or grit because they are of a self scavenging design. Witness their superior performance in such severe service as operating hopper doors on cement batching equipment and in other dusty environment.

INTERCHANGEABILITY
Solenoids and pilot sections are interchangeable from one valve size to another, minimizing spare parts requirements. Adaptation to any practical voltage is achieved by a simple coil change.

Speed of response, speed of installation and dependable leakproof operation year in and year out are responsible for the increasing switch to Crescent valves on production machinery where time is money.

For complete data write for Catalog 6-C.

BARKSDALE VALVES
5125 Alcoa Avenue, Los Angeles 58, California

For more details circle NED-674 B7 on enclosed inquiry slip

FAWICK AIRFLEX CLUTCHES

...The finest in Air Power Transmission

Fawick CB Airflex Clutch

- ★ Full operating power and continuous unmatched performance assured by drum-type clutch design.
- ★ Highest horsepower capacity per pound of clutch weight and per dollar invested.
- ★ Many types available in size ranges from 4" to 66" diameter.
- ★ Write Fawick today . . . Find out how you can increase productivity of your machines at lowest possible cost.

FAWICK AIRFLEX DIVISION
FAWICK CORPORATION
9919 CLINTON RD., CLEVELAND 11, O.
IN CANADA: FAWICK CANADA LTD., TORONTO

FAWICK Airflex
INDUSTRIAL CLUTCHES AND BRAKES

▲ For more details circle NED-675 B7 on enclosed inquiry slip ▲

20,000 AIR GAGE SPINDLES at LESS THAN A DIME EACH

ADJUSTABLE BALLJET SPINDLE KIT

In 5 minutes with this kit you can assemble a precision air gage spindle for any size hole between 1" and 3" diameter and with gage block accuracy. In increments of .0001", this kit gives you the equivalent of 20,000 gaging spindles at a cost of less than ten cents apiece—and not even one master setting ring is needed.

Exactly what is needed for short runs or to pinch hit in an emergency.

Ball Jet Spindle assembled

Ball Jet Spindle in use

Calibrating Fixture

Get a free demonstration of Sheffield Adjustable Air Gage Tooling, or write to The Sheffield Corporation, Dayton 1, Ohio—Dept. 13.

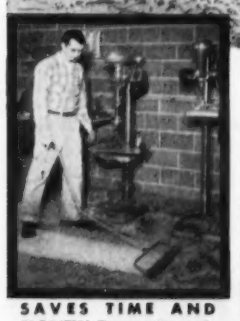
7437

GOLDEN ANNIVERSARY HEADQUARTERS

SHEFFIELD
manufacture and measurement for mankind

▲ For more details circle NED-676 B7 on enclosed inquiry slip ▲

MAKE A CLEAN SWEEP with this new rotary MAGNETIC BROOM!



SAVES TIME AND MONEY! Prevents accidents! Promotes better "housekeeping"!

Keeps work areas safe, clean—picks up all ferrous scrap, nails, parts, chips, etc. Offset handle permits sweeping inaccessible areas.

Greater-than-ever carrying capacity—rotary action loads full 360° of magnet. More "reaching out" power—permanent magnets guaranteed forever!

No batteries, no electric wires—nothing to get out of order or replace. Water-proof and oil-proof.

Exclusive wiper ring unloads broom instantly and effortlessly. Automatic inertia brake prevents unwanted rolling.

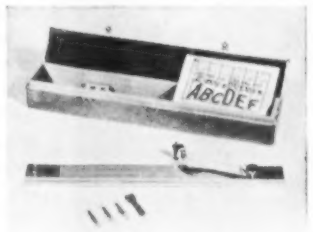
MODEL D-8
$35.25
3 low-price models for every application.

10-DAY FREE TRIAL! Try a Magnetic Broom in your plant for 10 days at no cost or obligation. Write for details today!

MAGNETOOL DIVISION OF MULTIFINISH MFG. CO.
26341 West Eight Mile Road • Dept. 457 • Detroit 19, Mich.

▲ For more details circle NED-677 B7 on enclosed inquiry slip ▲

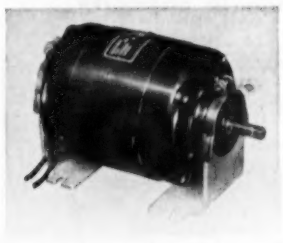
LETTERING SET
has upper and lower case alphabet



Included in Tech-Graph lettering set are adjustable scriber and template scriber guide in both capitals and lower case alphabet and numerals, in 1/8, 3/32, 3/16, 1/4 and 5/32-in. sizes. Set also has three nickeled reservoir ink retainers with quick-cleaning inking points for heavy, medium and fine lettering, interchangeable lead holder, refill leads and lead pointer. It adjusts to over 100 positions for lettering vertical, slant, italic and slope characters on drawings, maps, charts, small signs, Multilith masters and Mimeograph stencils. Made by **Alvin & Co.**, Palisado Ave., Windsor, Conn.

▲ For more details circle NED-678 B7 on enclosed inquiry slip ▲

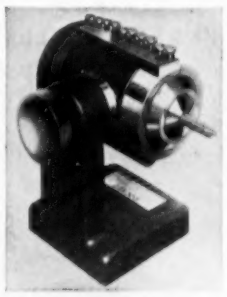
ELECTRIC MOTORS
rated to 1/15-hp at 1725 rpm



Lightweight type U split-phase induction motors, designed for office machines, blowers, pumps, and coin-handling machines and rated 1/20 and 1/15-hp at 1725 rpm and 1/30-hp at 1125 rpm, are now available for general use. They have resilient mounting, thermal overload protection, centrifugal cutout and quiet operation. Although sold in packages of ten, single units are available for experimentation. Made by **Bodine Electric Co.**, Dept. A, 2254 W. Ohio St., Chicago 12, Ill.

▲ For more details circle NED-679 B7 on enclosed inquiry slip ▲

TAP SHARPENER
for four, five and six-flute taps



Recently announced 60 series tap sharpener accommodates four, five and six-flute left or right-hand taps and has a collet capacity of 2 1/4 in. Pushbuttons control radial relief and provide indexing for amount of tap turn. Head is adjustable by a knurled knob from 0 to 90-degree angle to grinding wheel. Sharpener can be used on any surface grinder with a magnetic chuck, or can be bolted to the work table. Equipped with a 1 1/2-in. collet, it will handle any Hardinge 22-J collet to 2 1/4-in. capacity or equivalent. Models for other flute capacities or special collets can be specified. Made by **Rockford Die & Tool Works, Inc.**, Dept. NED, 1816 Seventeenth Ave., Rockford, Ill.

▲ For more details circle NED-680 B7 on enclosed inquiry slip ▲

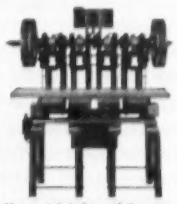
benchmaster ACCESSORIES

Built by *press experts* for *production experts!*

These accessories make press operations more automatic, eliminate unnecessary cost and get more work out per shift! You'll find them a big advantage on all Benchmasters and other presses, large or small!

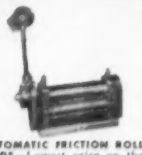
KOIL KRADLES—Supplies a slack loop from which any machine can draw. Takes the drag off automatic feeding devices, increases feeding accuracy on progressive or multiple die operations; puts through more footage per hour. Many sizes: 1200 to 4000 lbs., 36" to 60" coil diameters, 10" to 28" widths. Large capacities available.

KOIL KRADLE AND ROLL STRAIGHTENER COMBINATION—Straighteners also available as single units. Feed rate variable 25 to 100 rpm, straightener thickness capacity .500". Other sizes available.



If your job is beyond the tonnage capacity of a single Benchmaster, investigate our Multiple Ram Presses . . . 2 or more Benchmasters operating in tandem off a single crankshaft. You get more bed area, progressive die operation with individual die stations, lower die cost and easier die maintenance . . . at savings up to 50% in press cost!

ROTARY INDEX FEEDS—Converts your presses for automatically marking, crimping, assembling, reaming, trimming, etc., at speeds up to 6000 strokes per hour. Easy installation—4 bolt mounting. Two sizes: 12" or 15" tables, 10 or 12 stations. Larger sizes on special order.



AUTOMATIC FRICTION ROLL FEEDS—Lowest price on the market! Ideal for production work feeding small coil or strip stock. 3", 5", 7" and 9" roller widths. Two models, feeds adjustable from 0 to 5" cutoff or 0 to 6" cutoff. Plain, knurled or rubber covered rollers. Fits Benchmasters and other presses.

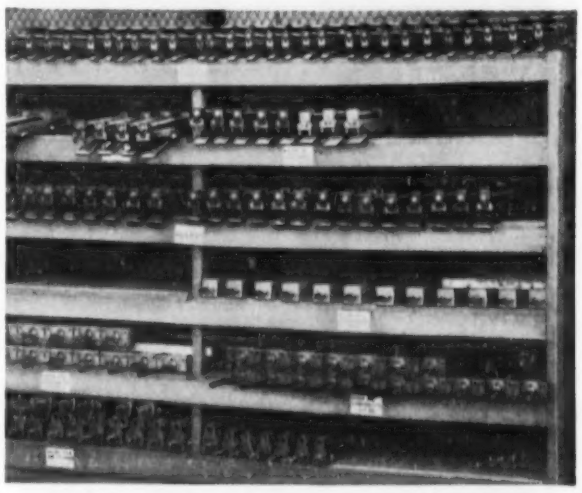
When you need a *SMALL MILL* remember Benchmaster. One mill handles both horizontal and vertical milling jobs. Takes an astonishing bite, yet holds close, precision tolerances.

FREE CATALOG

benchmaster — World's largest manufacturer of small punch presses and mills

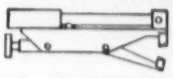
1835 West Rosecrans
Gardena, California

▲ For more details circle NED-681 B7 on enclosed inquiry slip ▲



SAHLIN NOW STOCKS REPLACEMENT JAWS FOR IMMEDIATE DELIVERY

Replacement jaws for Sahlin Iron Hands are now carried in stock for fast off-the-shelf delivery. Orders are promptly filled, often on the same day. Eight standard types are available: will design and build specials on request. To further speed service, write or phone complete information, including Model No. of the Iron Hand and description of jaw type.



SAHLIN ENGINEERING COMPANY, INC.
P. O. Box 289, Birmingham, Michigan

▲ For more details circle NED-682 B7 on enclosed inquiry slip ▲

CALCULAGRAPH furnishes accurate cost data *Automatically*

Take the guesswork out of your production costs with a dependable, economical Calculagraph system — a system that gives you accurate time costs automatically.

What's more, many workers can record starting and finishing time on the same Calculagraph and the ELAPSED WORKING TIME for each is computed on your job cards — to the minute or tenth of an hour.

Investigate, install Calculagraph now and know your exact time costs.

Write for illustrated brochure to Dept. NE

Agents in Principal Cities.

CALCULAGRAPH Company
HARRISON, N. J.

DEPENDABLE ELAPSED TIME COMPUTERS SINCE 1892

▲ For more details circle NED-683 B7 on enclosed inquiry slip ▲

CESCO...RIGHT—BEFORE YOUR EYES!

NEW!
Flexible Plastic Goggles

MEET WIDE RANGE OF INDUSTRIAL APPLICATIONS

New CESCO No. 565 Flexible Plastic Goggles

• Extremely lightweight and durable—molded from soft vinyl material—these #565 CESCO Flexible Plastic Goggles protect workers from dust, splashing liquids and moderate impact from any direction.

Comfortable to wear • They are perfectly contoured and fit snugly all around. Small perforations, angled away from the eyes, give adequate ventilation.

Give complete protection • They leave no open spaces. Fit perfectly over most personal glasses.

Permit full view • Wide window lenses are curved rather than flat to allow best vision.

Available in two styles • No. 565C (with clear plastic lens) or No. 565G (with green plastic lens).

ASK your CESCO Safety Equipment Distributor to show you this new goggle and the many other goggles in the complete CESCO line

CHICAGO EYE SHIELD COMPANY
2322 Warren Boulevard
Chicago 12, Illinois

CESCO FOR SAFETY

For more details circle NED-684 B7 on enclosed inquiry slip

SURETY SURESEAL INDUSTRIAL GLOVES

PROVED more wear per pair

FOR SAFE NON-SLIP USE

EXCLUSIVE

GRIPTITE FINISH

This Surety finish is non-cracking, non-peeling . . . grips effectively, wet or dry, oily or greasy . . . won't scratch polished surfaces . . . lasts as long as the gloves.

EXTRA SAFETY FEATURE

EXCLUSIVE

TURN-CUFF

The only gloves with an extra two inches of arm protection for plunging in or when cuffs are turned up, keep arms and inside of gloves dry when working with the hands above the elbows.

EXCLUSIVE *the only gloves made with* HYCAR

No other gloves wear so long, provide greatest resistance to acids, chemicals, oils, solvents, abrasion and snagging. Sureseals outwear rubber and other synthetic types up to 14 to 1—and resist snagging and puncture 4 to 8 times greater. Made in various weights and lengths to match your need. Use the coupon today for free test.

THE SURETY RUBBER CO., Carrollton, Ohio
Gentlemen: Dept. N
Please send me Sureseal information—we want to test Sureseals on the job.
Your Name _____
Company Name _____
Address _____
City _____ State _____
Your Jobber's Name _____
GLOVES ARE USED FOR (LIST MATERIAL GLOVES MUST WITHSTAND) _____

For more details circle NED-685 B7 on enclosed inquiry slip

FACTORY ASH TRAY
wall mounted or floor stand units

Jumbo size Dunking Stations, large canister type ash trays for use in factories, are made of cast aluminum and have double the capacity of standard units. Designed to minimize clean-up time in plants where on-the-job smoking is practiced, they are made in three models. Floor type unit has heavy weight base, upright, eye-catching sign and Jumbo canister. Also available is unit for mounting on walls, posts, or machines which has canister and sign, and the canister alone with mounting bracket. Made by **Standard Industrial Products Co.,** Dept. NE, 920 N. Garfield Ave., Peoria, Ill.

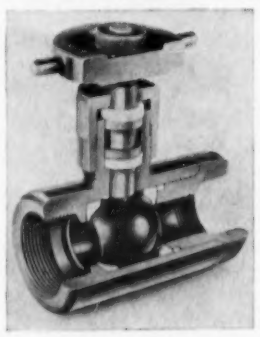
For more details circle NED-686 B7 on enclosed inquiry slip

LIGHTWEIGHT HOIST
29-lb unit has 1000-lb capacity

Minimum pull is needed to operate the model 31H lightweight differential hoist because of antifriction needle bearings in its lower sheave. The 29-lb unit has a capacity of 1000 lb and can be used for a wide variety of jobs. Mounting can be on a trolley if desired. It has an aluminum alloy frame, electrically welded zinc plated load chain and unbreakable drop forged steel swivel hooks. Chain is 26 ft long and lift is 7 ft. Made by **Thern Machine Co.,** 3800 W. Fourth St., Winona, Minn.

For more details circle NED-687 B7 on enclosed inquiry slip

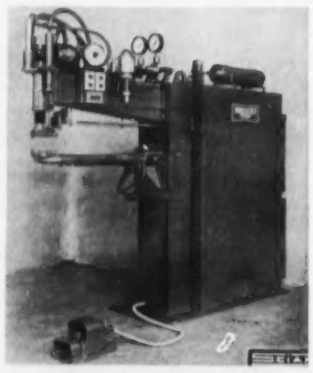
PLASTIC BALL VALVE
rated 50 psi at 130° F



This all polyvinyl chloride valve with Double-Seal ball design can be used in many plastic or metal piping systems for maintenance-free vacuum or pressure service. It will handle corrosive and other difficult fluids and provides full flow and quarter-turn shut-off. Valve is rated 150 psi at ambient temperatures and 50 psi at 130° F. Sizes ½ to 2 in. are available with screwed ends. Flange and weld ends will be available shortly in 3 and 4-in. sizes. Made by **Jamesbury Corp.,** 68 Millbrook St., Worcester 5, Mass.

For more details circle NED-688 B7 on enclosed inquiry slip

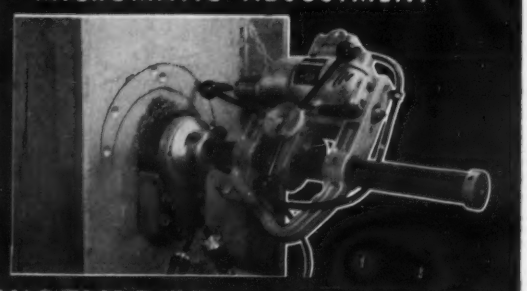
SEAM & SPOT WELDER
designed for light gage metals



Air operated press model combination seam and spot welding machine is designed for electric resistance welding of light metals. As a seam welder, the upper and lower heads rotate to either side to permit either transverse or longitudinal seam welding. Electrode wheels are driven by a dc motor. Minimum and maximum capacities consist of two thicknesses each of 0.005 to 0.010-in. for aluminum and other light alloys; and 0.002 to 0.016-in. for stainless steels, titanium, type 4130 steel and clean mild steel. Pressure system is capable of exerting a maximum of 120 lb electrode force under an airline pressure of 80 psi. Welding stroke equals ¼-in. plus 3½ in. retraction stroke. Throat depth is 36 in. Welding transformer is designed for single-phase, one-half cycle unidirection operation. Made by **Sciaky Bros., Inc.,** Dept. M-13, 4915 W. 67th St., Chicago 38, Ill.

For more details circle NED-689 B7 on enclosed inquiry slip

ONLY MAG-TOOL HAS MICROMATIC ADJUSTMENT



MAG-TOOL Drill Presses attach magnetically to ferrous surfaces bringing the capacity of heavy duty presses right to the job!

MICROMATIC ADJUSTMENT enables movement of the drill bit for precise positioning *after* the press has been attached to the working surface. For example, (see photo) the bit may be easily positioned anywhere between the two curved lines without moving the drill press. Inquiries invited.

MAGNETIC TOOL CORPORATION
1955 Lafayette St. Santa Clara, California

For more details circle NED-690 B7 on enclosed inquiry slip

CUT MIXING COSTS!

SPROUT-WALDRON
VERTICAL MIXERS

These mixers handle an amazingly wide variety of materials with less horsepower, less floor space, less maintenance, less first cost than any other type of mixers. Sizes up to 1500 cu. ft. can operate on as little as 30 h.p. They're completely self-cleaning. Ideal for use as agitated storage reservoirs.

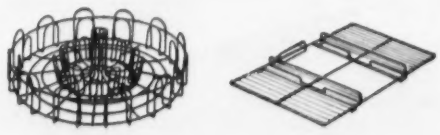
Write for Bulletin 97

Sprout-Waldron also offers a complete line of horizontal mixers. Write for details.

IN/503

SPROUT-WALDRON
Manufacturing Engineers Since 1866
8 LOGAN STREET • MUNCY, PA.
EQUIPMENT FOR SIZE REDUCTION—MIXING & BLENDING — BULK MATERIALS HANDLING — PELLETING & CUBING — PRODUCT CLASSIFICATION

For more details circle NED-691 B7 on enclosed inquiry slip



Versatile
FORMED WIRE PRODUCTS
BY *Peerless*

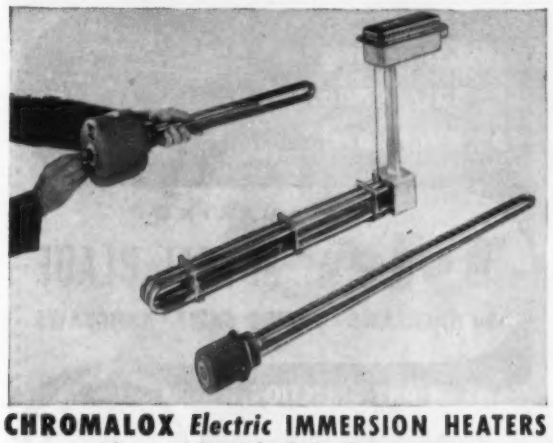
There's extra advantage in calling Peerless for consultation on your formed wire products problems. Peerless Design Engineers have been helping major manufacturers with recommendations, fabrication and delivery since 1910.

Peerless is recognized by the major manufacturers as one of the leading producers of wire goods. Complete facilities are maintained by Peerless for resistance welding at all points of contact and complete finishing services including zinc plate, zinc chromate, lacquer and poly-vinyl finishes. Peerless can help you with your design and formed wire production problems.

Write today for Peerless' new brochure on their plant facilities. We invite your immediate inquiry on your current problems.

PEERLESS WIRE GOODS COMPANY, INC.
2706 FERRY STREET · LAFAYETTE, INDIANA

For more details circle NED-692 B7 on enclosed inquiry slip



CHROMALOX *Electric* IMMERSION HEATERS
with or without built-in thermostats
... fit the heat to your need
up to 100,000 watts and 2,500 psi

Full range of sizes and ratings in portable, screw-plug and flanged types. Available with copper, steel or alloy sheaths.

Used for heating water, asphalt, greases, molten salts, pickling and plating baths, process kettles; for superheating steam and compressed air; for melting lead, solder, babbit; and similar applications.

Let the Chromalox Sales-Engineering staff solve your heating problems...electrically.

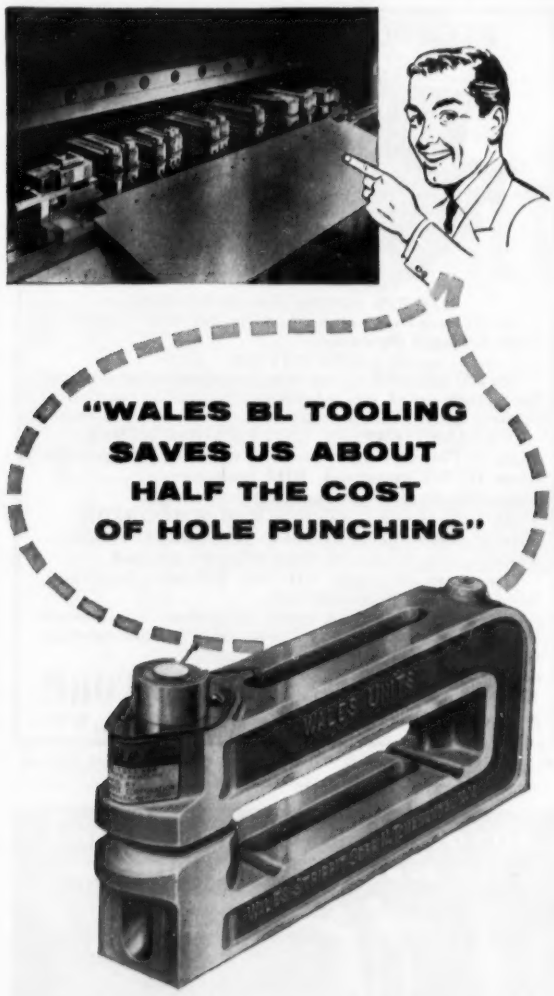
Write for your copy of Catalog 50
—for full information on the complete line of Chromalox Electric Heaters and controls.

For ideas on additional applications of electric heat, request Booklet F1550—"101 Ways to Apply Electric Heat."

SEE OTHER AD ON PAGE 4

Edwin L. Wiegand Company
7509 Thomas Boulevard, Pittsburgh 8, Pa.

▲ For more details circle NED-693 B7 on enclosed inquiry slip ▲



"WALES BL TOOLING is fast and accurate in our shop. Punches, dies and stripping mechanism are all contained right in the tooling, so our presses have a minimum of down time for change-overs. BL's are just about perfect for punching stock up to ⅛" thick and we get any type of pattern needed with the same units."

Nothing attached to the press ram. Alignment of punch and die is permanent. Notching equipment may be used in same set-up. Inventory is kept down and PRODUCTION UP!

SEND FOR BULLETIN No. 21-A
The complete story of BL tooling is here for the asking.
Send for your copy today.

WALES *Strippit* COMPANY
"...the Wales-Way is the PLUS-PROFIT way"
AKRON, NEW YORK
WALES-STRIPPIT OF CANADA LTD., HAMILTON, ONT.

▲ For more details circle NED-694 B7 on enclosed inquiry slip ▲

WIRE DEREELER
does not injure insulation

Tension device on the model D-54 spinning dereeler facilitates removal of any type of 15 to 36-gage wire, including magnet wire, from 12-in. diameter reels without injuring the insulation. Unit is adaptable for floor or table use with any type of winding machine or equipment. Rotation of the flyer pulley spins off the wire with uniform tension between two fiber disks. Overhead steel arm and pulley lead the wire to the winding machine. Overall height is 24½ in. and base is 11½ x 14½ in. Made by **Associated Production Co.**, Dept. 15, 162 N. Clinton St., Chicago 6, Ill.

▲ For more details circle NED-695 B7 on enclosed inquiry slip ▲

BENCH MODEL SLITTER
handles rubber, leatherette, plastic

Bench model slitter No. R-18 slits or swatches sponge rubber rolls or sheets up to ⅜-in. thick, hard rubber up to ¼-in. thick, as well as heavy-weight 0.040-in. plastic and leatherette. Unit accommodes parent rolls up to 18 in. wide, with any size cores, and will slit as narrow as 3/32-in. Cross-cut attachment is standard. Operator can produce up to 10,000 swatches per hour, as small as ½-in. square from rolls or sheets up to ¼-in. thick. Unit is foot switch-controlled and has three-speed motor. It operates on 110 v ac. Made by **Doven Machine & Engineering, Inc.**, 2706 W. Van Buren St., Chicago 12, Ill.

▲ For more details circle NED-696 B7 on enclosed inquiry slip ▲

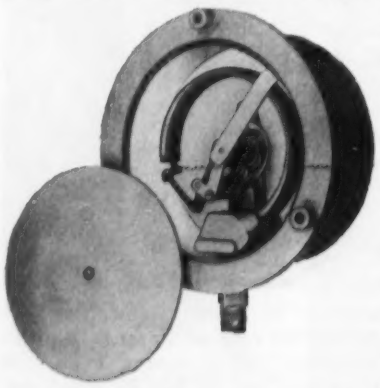
FLOOR MACHINE
explosionproof for hazardous areas

Explosionproof construction of the Commander floor machine made with 16 and 20-in. brushes assures safe maintenance of floors in powder factories, atomic research plants and other hazardous industries. Switch mounted on motor housing eliminates wiring from motor to handle. Start-and-stop control, however, is retained on handle. Unit is sealed to prevent sparks and static build-up, and static eliminator wire in brush prevents shock to operator. Instant-change attachments handle many jobs other than polishing. Made by **Holt Mfg. Co.**, 679 Twentieth St., Oakland 12, Calif.

▲ For more details circle NED-697 B7 on enclosed inquiry slip ▲

SAFETY GAGES
protect observer from burst tube

Injury to an observer caused by a bourdon tube bursting from excessive pressure, corrosion or other weakening factors is precluded in type SG safety gages.



They also afford easy access to internal gage mechanism for repairs, inspection, cleaning and recalibration. Integral cast metal wall protects internal mechanism from the dial. Tube rupture allows back of case to open to release force. Gages for wall, flush or direct mounting are offered in 4½, 6 and 8½-in. sizes in standard pressure ranges to 10,000 psi. Made by **Weksler Thermometer Corp.**, Dept. WC-1, 195 E. Merrick Rd., Freeport, L. I., N. Y.

▲ For more details circle NED-698 B7 on enclosed inquiry slip ▲

Handle Heavy Materials Easily • Safely • Quickly • with RUGER CRANES

These Ruger Hydraulic Truck-mounted cranes will move anything you can hang on a hook — always a one man crane operation. Capacities from ½ to 2 tons.

SUBSTITUTE FOR AN ELEPHANT®

RUGER CRANES
619 West Fourth St.
UHRICHSVILLE, OHIO

SEND FOR 1957 CATALOG
Completely illustrated with specifications for each model. Mobile Floor cranes also available. Capacities ½ to 3 tons. Write now for your copy.

▲ For more details circle NED-699 B7 on enclosed inquiry slip ▲

SHADOGRAPH
gives you faster, precision weighing

Shado-edge indication is projected by a beam of light—read it from any angle without danger of parallax. Always a true and fast reading—short lever fall and adjustable damping device brings indicator to rest quickly.

Model 4104 SHADOGRAPH Scales are available in capacities from 4 oz. to 3 lbs., with sensitivities from 1/500 ounce, 50 milligrams, or one grain. Other models available for weighing a few milligrams up to 200 lbs. with sensitivity for any precision weighing problem. Write for details.

Exact Weight Scales
Better quality control
Better cost control

THE EXACT WEIGHT SCALE COMPANY
930 W. Fifth Avenue, Columbus 8, Ohio
In Canada: P. O. Box 179, Station S, Toronto 18, Ont.

▲ For more details circle NED-700 B7 on enclosed inquiry slip ▲

• Submerged arc offers substantial savings in time and money. But both are sacrificed when the final weldment is unsound. To be sure of proper transfer of essential stainless elements, specify ARCOS Chromar Coiled Wire and Arcosite Flux. This quality combination assures you a properly blended analysis for sound, dependable welds.

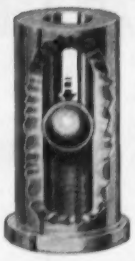
SEND FOR **FREE** DETAILS

Send for Arcos Product Bulletin on Chromar Wire and Arcosite Flux.

ARCOS CORPORATION
1500 South 50th Street • Philadelphia 43, Pa.

▲ For more details circle NED-701 B7 on enclosed inquiry slip ▲

Here's NEW Speed and Economy in HOLE SIZING and FINISHING!



BALLIZING is a high-speed, high-precision process for sizing and finishing holes — simply by pressing a suitably-oversize ball through the unfinished hole. It is used to advantage with holes from 1/16" to 5" diameter, in a wide range of metals — with production quantities from 1 piece to millions.

ADVANTAGES:

- FAST. Takes only seconds. Well suited to automation.
- ACCURATE. Produces uniform hole size.
- FINE FINISH — burnished smooth.
- ECONOMICAL. Replaces one or more machining, grinding or finishing operations. Uses unskilled labor. No tool sharpening. No close adjustments. No special or high-precision equipment required.

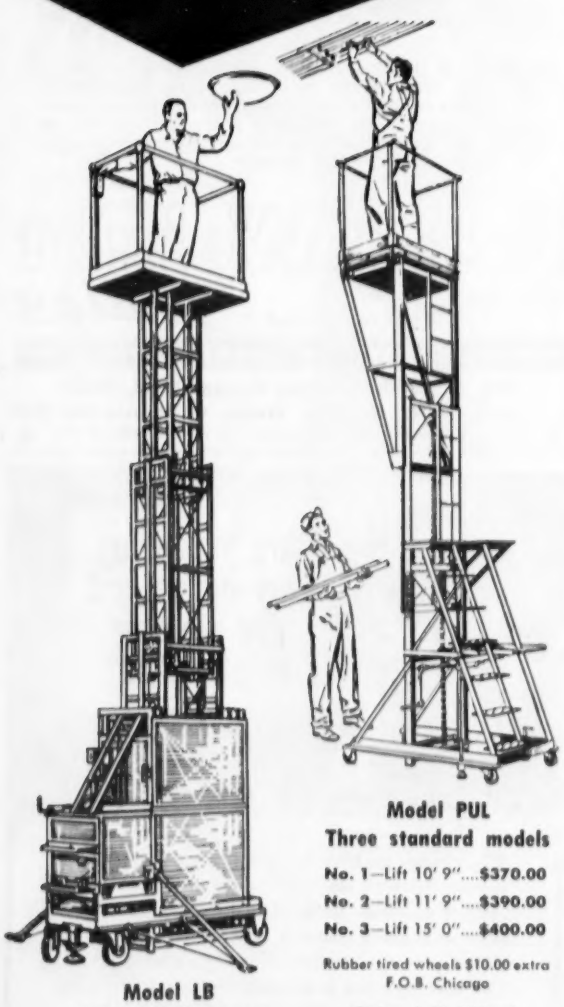
FREE BALLIZING BULLETIN gives details; shows typical applications. May we send you a copy?

INDUSTRIAL TECTONICS, Inc.
3669 Jackson Rd., Ann Arbor, Michigan
18322 Santa Fe Ave., Compton, Calif.

PRECISION BALLS OF ANY SIZE OR MATERIAL
ANTI-FRICTION BEARINGS FOR SPECIAL REQUIREMENTS
TOOLING BALLS — MASTER BALLS — SPHERICAL FINISHING

For more details circle NED-722 B7 on enclosed inquiry slip

90% of overhead servicing jobs can be done faster and with perfect safety with these ECONOMY Hi-Reach Telescopers!



Model PUL
Three standard models
No. 1—Lift 10' 9"....$370.00
No. 2—Lift 11' 9"....$390.00
No. 3—Lift 15' 0"....$400.00
Rubber tired wheels $10.00 extra F.O.B. Chicago

Model LB
Hi-Reach Telescopers
Four heights 20 ft. to 35 ft.
Standard Models from $1510.00 up.

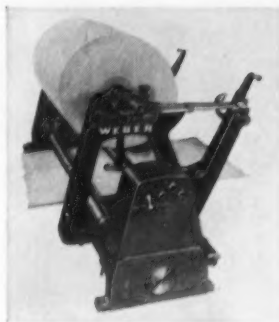
Custom built Hi-Reach Telescopers up to 100 ft.
Write for complete catalogue

Headquarters for standard and special built overhead service lifters and material handling equipment since 1901

ECONOMY ENGINEERING
4519 West Lake St., Chicago 24, Illinois

For more details circle NED-723 B7 on enclosed inquiry slip

UNWIND ROLL STAND
for varying roll diameters, widths



Unwinding or feeding of such flexible materials as textile products, plastics, synthetics, Fiberglas, and laminate in roll form to subsequent manufacturing operations is possible with the RST unwind roll stand. Manual flying splice arrangement speeds roll changeover. Motorized spindle support members adjust to varying roll widths. Either manual or automatic edge alignment controls are available. Standard models accommodate web widths from 32 to 70 in. and roll diameters up to 50 and 60 in. Custom units for larger or smaller rolls with other features can be built. Made by **H. G. Weber & Co.**, Dept. D-1, Kiel, Wis.

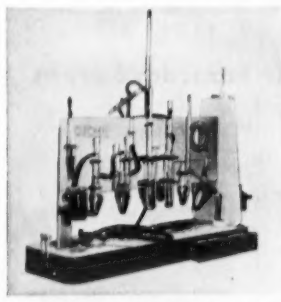
For more details circle NED-724 B7 on enclosed inquiry slip

AIR & GAS TRAP
handles condensate automatically

Combination of magnetic, pneumatic and automatic float action is used by the Mag-Pneu-Power trap to discharge condensate from compressed air or gas lines. Trap pressure range is 10 to 200 psi. Unit will be offered as an integral part of the Condensifilter condenser-filter unit. Made by **Hankison Corp.**, 237 Biltmore Bldg., Pittsburgh 16, Pa.

For more details circle NED-725 B7 on enclosed inquiry slip

INTERCHANGEABLE GLASSWARE
set for semimicro organic use



Over 60 components comprising 14 basic assemblies make up the Quickfit semimicro organic preparation glassware set. It uses 10/30 standard taper joints and is mounted on a board, precluding need for additional supports and clamps. Set is portable in its carrying case, measuring 28 x 8 x 16 in. and weighing 14 lb. Only connections to water and drain need be made as set is supplied completely assembled. Among operations which can be carried out are Willstatter and Schwinger filters, ice and water baths, reflux, melting point tests, extraction, distillation and steam, fractional and vacuum distillation. Made by **Arthur F. Smith Co.**, Dept. A, 311 Alexander St., Rochester 4, N. Y.

For more details circle NED-726 B7 on enclosed inquiry slip

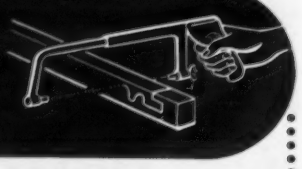
FORK LIFT TRUCK
electric walkie handles 2000 lb with total weight under 3500 lb

Improved outrigger type Easo-Lift battery powered walkie fork lift truck (*NED-Sept. '54*) features a reduced ratio of truck weight to load capacity. It can now handle up to 2000 lb without exceeding a total weight of 3500 lb. Truck has two speeds forward and two speeds reverse and a turning radius of 66 in.

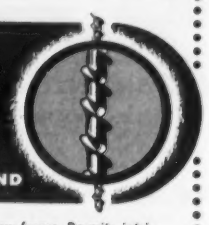
Single or telescoping masts range from 68 to 94 in. high, and forks lift from 54 to 120 in. high at rate of 15 fpm. Built-in automatic flow regulator safely lowers loaded or empty forks. All controls are in handle which becomes inoperative in the "up" position. Other lightweight models engineered to suit specific applications are available. Made by **Liftequip Co.**, Dept. C, 1979 E. 59th St., Cleveland 3, O.

For more details circle NED-727 B7 on enclosed inquiry slip

most amazing saw blade you ever saw!



THE AMAZING
Tyler SPYRAL BLADE
for HACKSAWS • COPING SAWS • BANDSAWS



SAWS IN ANY DIRECTION... up or down, right or left, even in circles!
SAWS ANY MATERIAL... wood, metal, plastics, rubber, leather, etc.
SAFE, CANNOT CUT YOUR HAND

Fits any standard hacksaw or coping saw frame. Permits intricate work not possible with **any** other blade. No chipping or tearing... leaves clean, smooth edge.
Adapter sets available for Delta 14" bandsaws and all Do-All machines.
Hacksaw blades — 29c each in lots of 10 to 49 blades. Prices on larger quantities and other items on request.
AT YOUR INDUSTRIAL SUPPLY JOBBER... OR WRITE TO:

TYLER MANUFACTURING CO. 1005 W. Arbor Vitae Ave., Inglewood, Cal.

For more details circle NED-728 B7 on enclosed inquiry slip

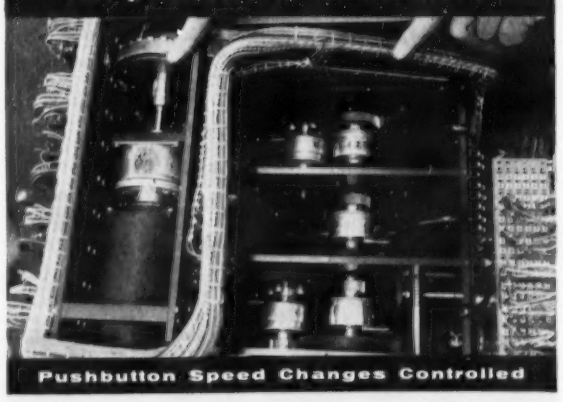
RECIPROCATING SOLENOIDS

R2D-328 SOLENOID OPERATOR
Reciprocating solenoids have the trade name of "RD Solenoid Operators."
DEFINITION
An RD solenoid operator is a reciprocating solenoid unit made up of two solenoids mounted in tandem to actuate a common plunger oscillating between them.
CLASSIFICATION AND DENOMINATION
Class I. Plain RD operators for operation in open air.
Class II. Oil immersed, RDZ operators.
Class III. Explosion proof RDX operators.
Type 1. Two point operators R2D, R2DZ, R2DX.
Type 2. Three point operators R3D, R3DZ, R3DX.
Form A, side mounted, Form B, end mounted.
Operators available: RD-100, RD-300, RDX-300, RD-400, RD-700 and RD-800.
Ask for bulletins on operators, solenoids, solenoid brakes, Reciprocators and Semotors. See our catalogs in Sweet's Catalog Service.

TROMBETTA SOLENOID CORP.
329 N. MILWAUKEE ST. • MILWAUKEE, WIS.

For more details circle NED-729 B7 on enclosed inquiry slip

AUTOMATIC TRANSMISSION for precision instrument



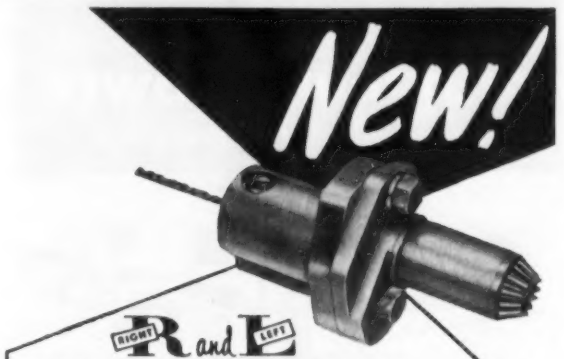
by Warner Electric Brakes and Clutches

Here's a faster, more automatic method for changing speeds in a geared drive. Warner electric clutches, in which *operating* torque and *actuating* power are produced by the same electrical impulse, provide an automatic power link for instantly engaging any combination of gears. Easily designed into enclosed drives... practically no lateral movement... full 360° engagement. Write for Catalog 6212.

WARNER

Beat competition with
ELECTRIC BRAKES AND CLUTCHES
Warner Electric Brake & Clutch Co., Beloit, Wis.

For more details circle NED-730 B7 on enclosed inquiry slip



RIGHT R and L LEFT

ON and OFF CENTER DRILLING ATTACHMENT

saves you second set-up and handling time!

Now, when an off-center hole is required in the end of a bar, you merely stop the spindle, bring this tool into the work and continue the operation. Compare this to taking the piece off the automatic, washing it, and setting it up on a drilling machine, and you can see what a real time and money saver this new R and L Tool is! Available in 3 standard sizes (⅝", ¾" and 1" dia. shanks.)

Write for literature and prices

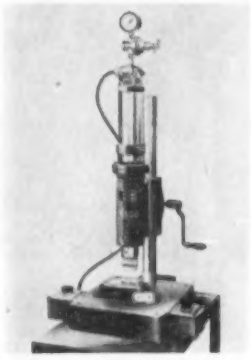
RIGHT R and L LEFT TOOLS

1825 BRISTOL STREET • PHILADELPHIA 40, PA.

OTHER NEW R and L TOOLS:
TOOL-SLIDE KNURLING TOOL FOR MULTI-SPINDLE AUTOMATICS (Also available for cross-slide) • TOOL HOLDER FOR MULTI-SPINDLE AUTOMATICS • RECESSING TOOL

▲ For more details circle NED-731 B7 on enclosed inquiry slip ▲

IMPACT PRESS
bench model stamps steel parts



Letters and numbers can be stamped into steel parts by the Pneumark 10 T bench model impact press. Die space of the powerful unit is quickly changed by means of a handle at the right side of the column. Solid steel base has tapped 6½-13 holes for fastening fixtures. Lettering tools use a 1-in. round shank. Press is operated by a solenoid controlled valve which opens only when both hand control buttons are pressed simultaneously. Made by **Geo. T. Schmidt, Inc.**, 1800 Belle Plaine Ave., Chicago 13, Ill.

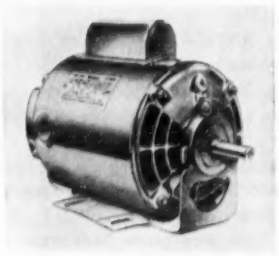
▲ For more details circle NED-733 B7 on enclosed inquiry slip ▲

MIDGET PACKING GLAND
seals wires, tubes or rods

Positive sealing of wires, tubes or rods is assured with model MPG-AL midget packing gland made from 24S-T4 aluminum or 303 stainless steel. Glands employ soft sealants such as neoprene, Lava, Teflon or asbestos-graphite which eliminate possible damage to wire, tube or rod composition and permit the sealing of ceramic, stainless steel, aluminum, brass or glass materials. Bore diameters of 1/16, 3/32, ⅛ and 3/16-in. are offered. Stainless units are available with bore diameters up to ¾-in. Glands measure only 1⅛ in. long by ½-in. hex and operate in −300 to 1850° F range and pressures from 500 to 7500 psi. Made by **Conax Corp.**, 7812 Sheridan Dr., Buffalo 21, N. Y.

▲ For more details circle NED-734 B7 on enclosed inquiry slip ▲

FRACTIONAL HORSEPOWER MOTORS
rigid and resilient base models



Capacitor-start and split-phase motors in rigid and resilient base models are now available in NEMA frame size 48. Use of small, lightweight machined steel frames and cast aluminum end plates makes possible 3 to 8-lb weights for 1/6, ¼ and ⅓-hp units. New lubrication system allows mounting of sleeve bearing motors at any angle. High dielectric strength, moisture resistance and thermal stability have been obtained through use of Mylar-paper laminated slot insulation. A quick-break switch and accessible terminal board are other features. Made by **Wagner Electric Corp.**, 6382 Plymouth Ave., St. Louis 14, Mo.

▲ For more details circle NED-735 B7 on enclosed inquiry slip ▲

SHEPARD NILES HOISTS

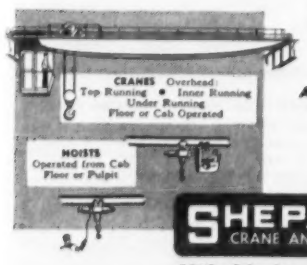
SAVE YOU MONEY

Heavy-Duty SHEPARD NILES Hoist

YOU GET A HOIST that will lift your loads year after year when you buy one bearing the Shepard Niles name. Long after you've written it off, your Shepard Niles Hoist will be cutting costs, speeding work in your plant.

Shepard Niles offers you electric hoists of proven quality for cycle duty, heavy intermittent duty, medium duty and light-occasional service. Choice of medium and heavy capacities with slow, medium and fast speeds.

Available with short to long lifts, standard or close headroom, manual or magnetic controls. Easily reconnectable throughout for changing voltages of alternating current. Low voltage at push button station included. Also suitable for weather-proofing and vapor proofing.

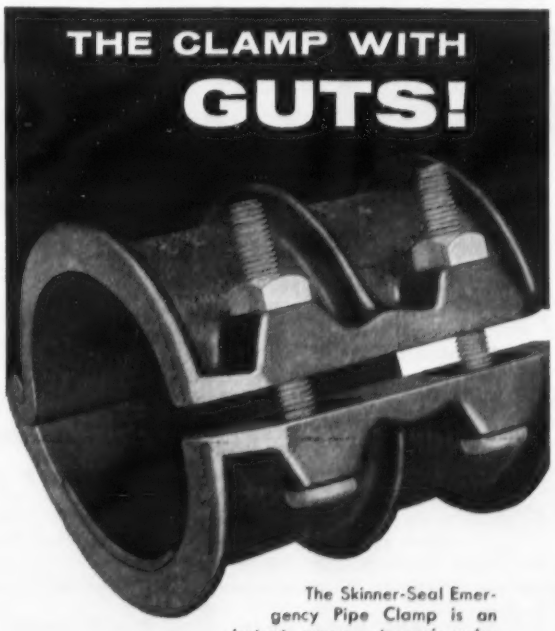


Send for Bulletin illustrating complete line of Shepard Niles Hoists. Request a representative to call.

America's Most Complete Line of Cranes and Hoists Since 1903

SHEPARD NILES
CRANE AND HOIST CORPORATION
1879 Schuyler Ave., Montour Falls, N. Y.

▲ For more details circle NED-732 B7 on enclosed inquiry slip ▲

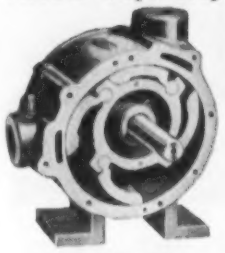


The Skinner-Seal Emergency Pipe Clamp is an instant, permanent repair under any operating condition. No pressure too high. Anyone can apply in a few moments. Made in all sizes, ½" to 12", for steel and C. I. pipe. Carried in stock by 1300 industrial distributors!

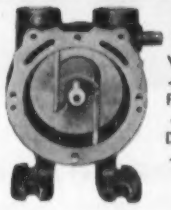
M. B. SKINNER CO., South Bend 21, Ind.—Established 1898

▲ For more details circle NED-736 B7 on enclosed inquiry slip ▲

LEIMAN AIR PUMPS maintain rated capacity for years and years



VACUUM —up to 29.9" Hg.
PRESSURE —up to 20 psig.



2 WING TYPE
Vacuums -to 29.9" Hg.
Pressures -to 20 psig.
Displacement -to 40.8 c. f. m.

4 WING TYPE
Vacuums to 20" Hg. Pressures to 15 psig. Displacement to 162 c. f. m.

Take up their own wear to assure leakproof seal

Wear and trouble have been designed out of Leiman Air Pumps. The rotating wings (cast iron in the 4-wing type, steel in the 2-wing type) hone the cast iron cylinder walls to glassy smoothness. Negligible wear is automatically taken up, maintaining "new pump" efficiency for periods of 10, 15 and 20 years.

Leiman Air Pumps have fewer moving parts—no tips or blades to renew—need no maintenance except occasional oiling—run quietly and trouble-free. Wide range of sizes and models for countless vacuum, suction and pressure jobs. Distributors and engineering assistance available in all industrial centers.

LEIMAN Rotary Air and VACUUM PUMPS

Write for 12-page Catalog and Application Book showing 60 "how-to-do-it" blueprints.

LEIMAN BROS., Inc.
187 Christie St., Newark 5, N. J.

▲ For more details circle NED-737 B7 on enclosed inquiry slip ▲

MICRO SWITCH . . . FIRST IN PRECISION SWITCHING

SEALED . . . RELIABLE . . .
VERSATILE . . .
MILLIONS OF OPERATIONS

Small, 2-circuit limit switch meets wide variety of applications.

This long-life, extremely reliable precision switch is compact to fit into small space. It is extremely reliable, ruggedly housed and can be mounted in almost any location. Actuator head may be removed in the field and rotated to permit actuation from any of the four quadrants. The roller arm actuator is field adjustable through 360°. It may operate in either direction or one direction only. (Send for Catalog 83)

Full of invaluable ideas . . . and FREE.

MICRO TIPS is a "how others do it" publication—full of practical uses for snap-action switches. Write today if you are not now on our mailing list. We'll send back-copies—if you ask.

MICRO SWITCH
A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY
In Canada, Leaside, Toronto 17, Ontario • FREEPORT, ILLINOIS

▲ For more details circle NED-738 B7 on enclosed inquiry slip ▲

Saginaw sets the pace for industrial casters

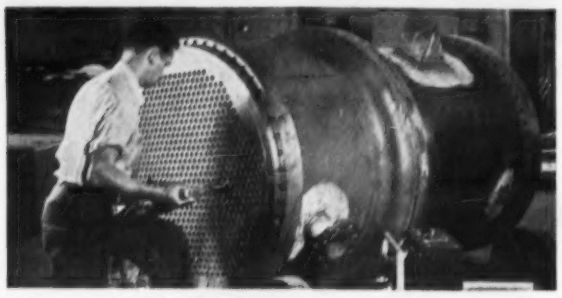
Saginaw

get all the facts about the casters that are engineered for modern material handling . . .

SAGINAW PRODUCTS CORPORATION
53 SAGINAW 3, MICHIGAN

PLEASE SEND ME YOUR NEW ENGINEERING MANUAL NO. C-56
NAME _____
COMPANY _____
ADDRESS _____

▲ For more details circle NED-739 B7 on enclosed inquiry slip ▲



How much do you pay for

heat exchangers?

If you still order specially designed heat exchangers for each job, you are probably paying more than necessary.

Pfaudler stockpiles a line of flexible standard heat exchangers. They give you the economy of standardization *and* a flexibility which make them adaptable to wide usage.

The fixed tube sheet exchangers are available in stainless steel and other alloys. *Economical*—lowest first cost of any type of heat exchanger. *Versatile*—they can be used as heater, cooler or condenser. *Easy to clean*—tubes are straight, heads are removable. *Leakproof*—no internal gasket. No possible intermixture between hot and cold side fluid through gasket failures. *Fast delivery*—shipment of type 316 stainless steel tube side units in 10 days.

For all the facts, ask for "Manual 837."

THE PFAUDLER CO.
Rochester 3, N.Y.
Specialists in Corrosioneering

▲ For more details circle NED-740 B7 on enclosed inquiry slip ▲

EDMONT CASE NO. 583: Ohio manufacturer had been supplying women employees $12 per dozen goatskin gloves for inspection handling of rubber automotive parts. Average wear was 20 shifts. Edmont recommended a smooth fitting, soft, plastic-impregnated glove (No. 101 Werx) that wore 25 shifts and cut glove costs 66%.

Job-fitted glove replaces canvas and goatskin

No. 101 Werx

Made of special vinyl-impregnated cotton fabric, Edmont Werx gloves average 4 times longer wear than canvas. On many jobs they also outwear expensive goatskin gloves and have no offensive odor. Exceptional dexterity and non-slip grip make them ideal for handling small parts and for inspection, material handling, shipping and receiving operations. They are moisture repellent, lint-free and washable. Very comfortable to wear. Available in both slip-on and knitwrist styles for men and women.

EDMONT CASE NO. 356: To provide protection against sharp edges and to prevent finger marks in handling molded plastic parts, Edmont recommended No. 151 Werx glove to leading appliance manufacturer. They outwore canvas gloves previously used by 4 to 1.

Free Test Offer to Listed Firms:

We make over 50 types of *job-fitted* gloves in various styles and coatings. Tell us your operation, materials handled and temperature condition. We will recommend glove and coating that best fits job and supply samples for comparison testing on-the-job.

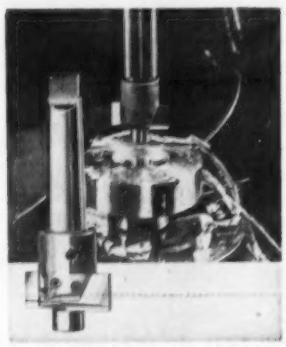
EDMONT MANUFACTURING COMPANY
1240 Walnut Street, Coshocton, Ohio
In Canada write MSA, Toronto

Edmont

Edmont JOB-FITTED GLOVES

▲ For more details circle NED-741 B7 on enclosed inquiry slip ▲

COUNTERBORE & SPOTFACER two-bladed tool is adjustable



Large diameters can be counterbored to precision tolerances and held to specific diameters, even after numerous tool regrinds, by this two-bladed adjustable counterbore. It can be used for spotfacing or counterboring a wide variety of metals. Choice of straight or tapered shanks permits use in radial drills, drill presses, turret lathes and milling machines. Laterally adjustable M3 type high speed steel blades are mounted ahead of center to produce a shearing action that rolls curled chips outward, away from the pilot. Counterbores take standard pilots or can be used with stub drills. Five sizes cover hole sizes from 1 to 4 in. OD. Made by **Robert H. Clark Co.**, Dept. 250, 9330 Santa Monica Blvd., Beverly Hills, Calif.

▲ For more details circle NED-742 B7 on enclosed inquiry slip ▲

SPOT & TACK WELD UNIT accessory for current models

Semiautomatic spot and tack welding accessory, available in kit form or factory installed, is suited for use on all semiautomatic model Fillerarc wire drive units. Set consists of gun adaptor kit and control, and includes locating plates for butt, corner and fillet welds. It can also be adapted for other configurations. Controls are permanently mounted on a steel door that replaces the standard door on the wire drive unit. Screw-on nozzle and two sets of locating plates are included in the kit. Control consists of timer for 8 to 360-cycle welding times, on-off switch for timer and slow-fast switch for starting the wire drive. Made by **General Electric Co.**, 1 River Rd., Schenectady 5, N. Y.

▲ For more details circle NED-743 B7 on enclosed inquiry slip ▲

Brazing Alloys

Handy & Harman—High-temperature brazing alloys for brazing stainless steel and variety of heat-resistant alloys are described as to specifications, selection factors, recommended applications and other data in 4-page bulletin 22. Alloys have from 72.5 to 93.25 per cent nickel content.

▲ For more details circle NED-744 B7 on enclosed inquiry slip ▲

Rotary®

OILDRAULIC® POWER

Cuts the cost of lifting heavy loads

Write for catalogs
ROTARY LIFT CO., 1091 KENTUCKY, MEMPHIS, TENN.

▲ For more details circle NED-746 B7 on enclosed inquiry slip ▲

EXTRA HEAVY locking, safety type quickly detachable

Valve Coupling Locked in "On" Position

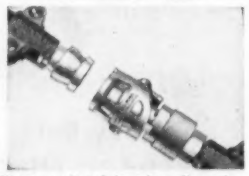
VALVE COUPLINGS

give the operator complete control of the air line at any point

Operator can shut off air and change tools quickly. Newly improved design permits the coupling to be locked in either "On" or "Off and Exhaust" position. Air in tool is exhausted to atmosphere automatically, preventing accidents. Pressure tight leak-proof construction — but free swiveling to avoid kinking the hose. For any application involving line air to 250 psi.

Valve Coupling Unlocked and Disconnected

Valve Coupling Locked in "Off and Exhaust" Position



Write for Bulletin No. 551

Quick-As-Wink®
Air and Hydraulic Control Valves and Pressure Specialties

C. B. HUNT & SON, INC.
2105 E. PERSHING ST. • SALEM, OHIO

▲ For more details circle NED-747 B7 on enclosed inquiry slip ▲

ON VOLTAGES UP TO 600 . . . There's a Safe and Dependable . . BUSS Fuse or Fusetron Fuse to fit the needs of every user

BUSS One-Time Fuses

. . . save users time and money because they can be depended upon to operate as intended under all service conditions.

BUSS Super-Lag Renewable Fuses

have a big advantage over other renewable fuses because they prevent interruptions of service caused by needless blows.

FUSETRON Dual-Element Fuses

do more than protect against short-circuits—they abolish needless blows—protect motors & equipment against burnout—permit use of proper size switches and panels—protect switches and panels against damage from poor contact heating.

BUSS Clear Window Plug Fuses

— one-piece body and "safety" design guarantees protection. They are more convenient too because a blown fuse can be seen even when the light is poor.

FUSETRON Dual-Element Plug Fuses

— protect against short-circuits and overloads — and safely reduce needless blowing.

BUSS Fustats (have type S base)

— Like Fusetron fuses they stop needless blows — but their type S base prevents anyone from replacing them with penny or substitute, or using a size too large to protect.

BUSS Hi-Cap Fuses

for loads above 600 and up to 5,000 amps. When coordinated with Fusetron fuses they will not open ahead of the fuse nearest fault.

0 to 14 Ampere BUSS Fustats

protect motors and apparatus of voltages up to 125 amp. against burnout. They have the Underwriters' approval for both motor-running and short-circuit protection.

BUSS and FUSETRON Small Dimension Fuses

for protection of TV, Radio, Instruments, Radar, Avionics and Electronic Equipment. A complete line of fuses is available. Made in Dual-Element (slow-blowing), Renewable and One-Time Types in sizes from 1/500 Amp. up . . . plus a companion line of fuse clips, blocks and holders.

BUSSMANN MFG. CO. (Div. of McGraw Electric Co.)
University at Jefferson, St. Louis 7, Mo.

▲ For more details circle NED-745 B7 on enclosed inquiry slip ▲

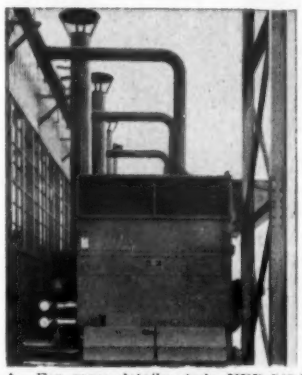
HOW YOU SAVE...

Getting Drier Compressed Air

● Save the cost of cooling water and you save the price of the Niagara Aero After Cooler (for compressed air or gas) in less than two years.

Extra, for no cost, you get drier compressed gas or air for your process. You get better operation and lower costs in the use of all air-operated instruments, machines, or paint sprays. You save expense for piping, pumping, water treatment and disposal.

Niagara Aero After Cooler cools compressed air or gas (evaporatively) below the temperature of surrounding atmosphere, with no further condensation in your air lines.

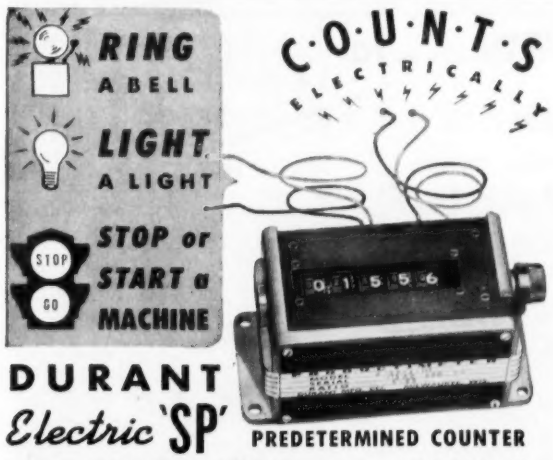


Write for Bulletin 130.

* * *

NIAGARA BLOWER COMPANY
Dept. ED
405 Lexington Ave.,
New York 17, N. Y.

▲ For more details circle NED-748 B7 on enclosed inquiry slip ▲



DURANT *Electric* **'SP'** PREDETERMINED COUNTER

(COUNTS ELECTRICALLY and CLOSES SWITCH AT END OF PRE-SET COUNT)
Eliminates costly over-runs or time consuming under-runs. Actuated by Photo Electric Cell, Tube, Relay, or Contact Switch. Counter can be located where desired. Predetermined count may be set at any figure to 99,999. Hundreds of applications in all phases of production and instrument work.

SMALL • COMPACT • RUGGED • FAST • ACCURATE

Send for Catalog No. 56

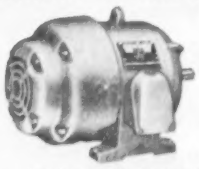
DURANT MANUFACTURING CO.
1922 N. Buffum St. Milwaukee 1, Wis.
22 Thurbers Ave. Providence 5, R. I.
Representatives in Principal Cities

PRODUCTIMETERS SINCE 1879 *Count Everything*

▲ For more details circle NED-749 B7 on enclosed inquiry slip ▲

STERLING
Advanced Design
GIVES AN EXTRA BONUS OF
Ruggedness and Dependability

Sterling Drip-Proof Motors



Sterling Totally Enclosed Fan-Cooled Motors

1. Over 50% Less Inactive Space
2. Protected Construction
3. Greater Bearing Protection
4. Advanced Design Terminal Box
5. Heavy Duty Ball Bearings
6. Herringbone Rotor
7. Direct-through Ventilation
8. Increased Efficiency and Performance
9. Stator Windings of Advanced Design
10. Improved Insulation

Compare and Discover the Big Pluses of Sterling Advanced Design

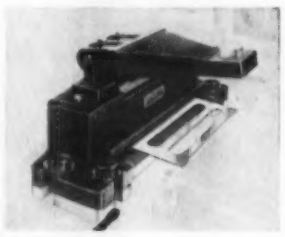
Write today for Bulletin No. 181. Discover the big advantages Sterling Electric Power Drives can bring to your plant

STERLING ELECTRIC MOTORS

Los Angeles 22 • Chicago 35 • Cincinnati 37 • New York 51

▲ For more details circle NED-750 B7 on enclosed inquiry slip ▲

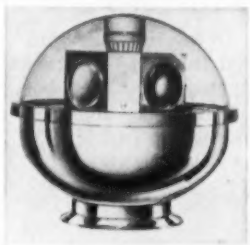
SCRAP CHOPPER
handles 3/32 x 12-in. steel



Driven by the punch press ram and independent of the die, this 12-in. scrap chopper is easily installed on any punch press for handling any coiled ribbon stock measuring up to 3/32 x 12 in. Scrap falls directly into a container. Blades are quickly removed for grinding. Made by **Jaco Devices, Inc.**, 95 High St., Hingham, Mass.

▲ For more details circle NED-751 B7 on enclosed inquiry slip ▲

WARNING FLASHER
for cranes, machines, obstructions



Applicable to hazardous locations, dangerous entrances and exits, traveling cranes and moving machinery, this emergency warning light flashes 80 strong red signals per minute. As revolving table rotates, four parabolic lenses in focus with lamp filament emit the warning signals in rapid succession. The light operates on 115/120 v, has continuous duty extra torque synchronous motor and 50-w bulb, and easily mounts on pipe or flat surface in upright or inverted position. Made by **Trippe Mfg. Co.**, Dept. Z, 133 N. Jefferson St., Chicago 6, Ill.

▲ For more details circle NED-752 B7 on enclosed inquiry slip ▲

SUBMERGED ARC WELDER
tractor type is easily maneuvered

Welding operations involving long seams can be performed by this tractor-type automatic submerged arc welding unit. It will weld backward or forward, either when locked into position for straight line seam, or when maneuvered by operator on a curved or irregular seam. Adjustable nozzle allows welding on flat butt or fillet joint. Model TSM-5D embodies the model ASM-5D weld unit with basic welding head, wire-feed motor, controls, molded flux hopper, wire reel, and tractor mounting. Model TSM-5T includes an additional remote control for welding voltage. Made by **Hobart Brothers Co.**, Dept. 205-h, Hobart Sq., Troy, O.

▲ For more details circle NED-753 B7 on enclosed inquiry slip ▲

Why Tolerate 10% LEAKERS? WHEN PLS* SEALS 100%

LEAKERS ARE COSTLY!—they mean many man-hours lost in taking down, "re-doping" and re-assembling connections.

WHY TOLERATE THEM?—when "John Crane" *Plastic Lead Seal gives a 100% seal on the original connection. And you don't have to worry about service, temperatures or pressures—PLS withstands water, steam, oil, gas, refrigerants, chemical and petroleum products—temperatures to 550°F., and pressures to 6000 psi. Use PLS on pipe joints, plugs, screwed fittings, flanges and gaskets. Send for free sample or trial order. In 4-oz. tubes, 1-lb. brush or friction top cans, 5-lb. cans, 15 and 28-lb. pails, and 85-lb. drums.

Crane Packing Company, 6411 Oakton St., Morton Grove, Ill., (Chicago Suburb)
In Canada:
Crane Packing Co., Ltd., Hamilton, Ont.

JOHN CRANE
CRANE PACKING COMPANY

▲ For more details circle NED-754 B7 on enclosed inquiry slip ▲

CUT SCRAP HANDLING COSTS with **EC&M** Lightweight **MAGNETS**

2 SIZES 45" and 55"

• For fast-moving boom or crawler cranes, these EC&M Magnets (wound with aluminum strap conductor) give high lifts on light (wind-blown) scrap. They keep balers at top output ...place bales into cars...and handle heavier grades of scrap effectively.

Write for BULLETIN 900-L

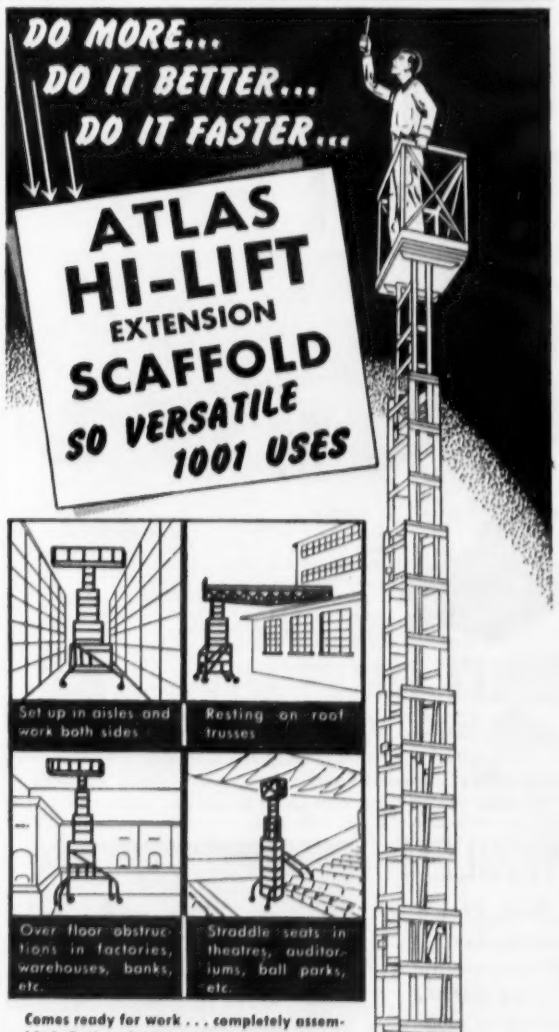
THE ELECTRIC CONTROLLER & MFG. CO.
A DIVISION OF THE SQUARE D COMPANY
CLEVELAND 28 • OHIO

7932

▲ For more details circle NED-755 B7 on enclosed inquiry slip ▲

DO MORE... DO IT BETTER... DO IT FASTER...

ATLAS HI-LIFT EXTENSION SCAFFOLD
SO VERSATILE 1001 USES



Comes ready for work . . . completely assembled. Push a button, or turn a crank and your skilled hands are on the job — where the work is — quickly, safely. Ideal for painting, lighting, cleaning, and all overhead maintenance. Pays for itself over and over in time and labor saving.

FREE **Consultation! If you have a specific problem, our engineers are prepared to offer a solution.**

ATLAS INDUSTRIAL CORP.
853 39th Street
Brooklyn 32, N. Y.

Atlas Industrial Corp.
853 39th St., Brooklyn 32, N. Y.
Please send FREE complete literature on all models.

NAME _____ TITLE _____
COMPANY _____
ADDRESS _____
CITY _____ Phone No. _____

▲ For more details circle NED-756 B7 on enclosed inquiry slip ▲

NEW SIMPLICITY UNIT GREATLY SPEEDS WASHING OF SMALL PRODUCTION PARTS

Although it will not damage even delicate threads and flanges, this new Simplicity Parts Washer forces washing solution into every opening of machined parts . . . even blind drillings and slots. Combines production speed with hand-washed thoroughness.

Serves as a quencher for heat-treated pieces; for degreasing metal stampings, as well. For further facts write to:

187

Ask for Bulletin No. 104

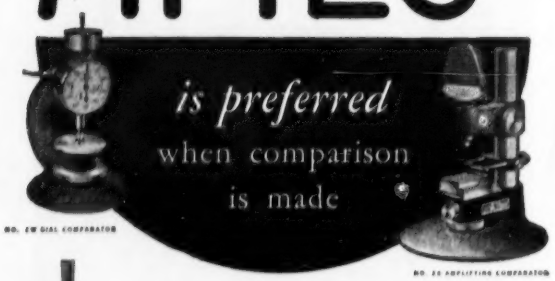
Simplicity TRADE MARK REGISTERED

ENGINEERING COMPANY • DURAND 15, MICH.

FOR CANADA: Simplicity Materials Handling Limited, Guelph, Ontario

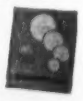
▲ For more details circle NED-757 B7 on enclosed inquiry slip ▲

AMEs



For fast, accurate measurements, Ames Dial Comparators are the choice of quality control men everywhere. You get definite, impersonal readings directly from the dial. There's no guesswork or figuring.

Special comparators are available for measuring resilient materials such as rubber, paper, etc., and for measuring non-yielding materials such as sheet metal, glass and plastic. Write for complete details.



Representatives in principal cities

B.C. AMES CO.

34 Ames Street, Waltham 54, Mass.

MANUFACTURERS OF MICROMETER DIAL GAUGES • MICROMETER DIAL INDICATORS

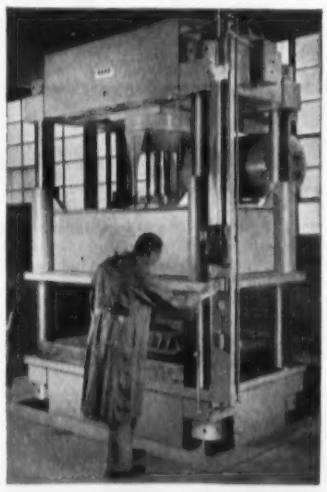
▲ For more details circle NED-758 B7 on enclosed inquiry slip ▲

PROBLEM

to produce low-cost prototypes of a new design without the high cost of permanent tooling

SOLUTION

a single 300-ton Dake Hydraulic Die Tryout Press with temporary tooling



Lack of press facilities is usually a major drawback in die tryout. Chicago diemaker, Cripps Engineering and Tool Co., Inc., has effectively solved this problem with a single 300-ton Dake Hydraulic Press. Now they are able to test all dies before delivery to the customer. Shop down time is held to a minimum . . . production efficiency is uninterrupted. Write today for Bulletin 330 giving full information.

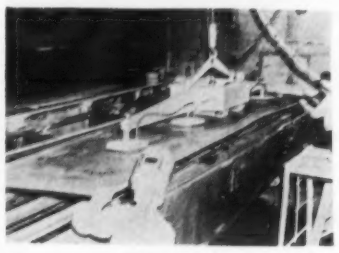
DAKE PRESSES

DAKE CORPORATION

642 Seventh St., Grand Haven, Mich.

▲ For more details circle NED-759 B7 on enclosed inquiry slip ▲

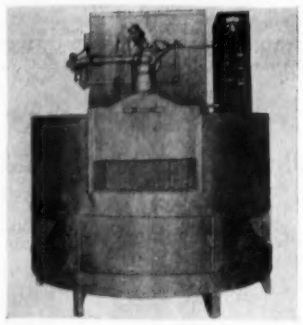
MATERIALS HANDLING SYSTEM uses single or multiple vacuum pads



System which creates vacuum to 20 in. of mercury induces a positive grip on the Vac-U-Pads used single or in multiples on the Vac-U-Lift materials handling system. Metal suction pads, made in various shapes to fit the application, have a sealing ring attached to their perimeter. Reserve vacuum system maintains grip while lifting in the event of power failure. System will lift and hold non-porous materials and can be used in conjunction with lift trucks, cranes or hoists. Round pads are offered with ball and socket attachment, ball socket locking type and rigid type from 2¾ to 18 in. diameter with lifting capacities from 25 to 1200 lb each. Rectangular pads range from 5 x 15 in. to 12 x 35 in. and have capacities from 275 to 2000 lb each. Made by **Vac-U-Lift Co.**, Dept. N, Box 298, Salem, Ill.

▲ For more details circle NED-760 B7 on enclosed inquiry slip ▲

ROTARY HEARTH OVEN loaded, unloaded from same position



Continuous movement of work in and out of the heating zone is afforded in this rotary hearth oven, built to permit loading and unloading from the same position by a single operator. Standard speed range from 2 to 10 ipm adapts oven for processing many types of products. Other speeds can be specified. Use of an alloy steel chain curtain conserves heat and provides access. It is built to individual requirements with an insulated working chamber, recirculating blower, adjustable fresh air and exhaust dampers, indicating temperature controller, electric ignition and pilot lights. Illustrated model has inside working space of 150 x 14 x 9 in. and maximum working temperature of 1000° F. Made by **Grieve-Hendry Co.**, 1408 W. Carroll Ave., Chicago 7, Ill.

▲ For more details circle NED-761 B7 on enclosed inquiry slip ▲

Waste Receptacles

Bennett Mfg. Co.—Thirteen sizes make up the line of Bennett waste receptacles shown in 8-page catalog 756. Features include welded construction, rounded corners, acid resisting outdoor baked enamel finish and four stainless steel feet. Paper towel and toilet tissue dispensers are also briefly described.

▲ For more details circle NED-762 B7 on enclosed inquiry slip ▲

THE **Sutton** MOTOR DRIVEN PRESSURE BLOWER

THE WORLD'S *Most Dependable* PRESSURE BLOWER

THREE SIZES ¼, ½, 1 H.P.

USED FOR EXHAUSTING DUST, SMOKE, FUMES, VAPOR . COOLING AND DRYING . . CONVEYING COTTON, WOOL, SHAVINGS . . FORGE BLASTING

MADE OF LIGHTWEIGHT CAST ALUMINUM ALLOY to reduce weight and increase strength. CENTRIFUGAL TYPE. Delivers even, non-pulsating flow of air. Universal as to rotation and discharge. Direction of discharge may be changed to any of eight 45 degree positions. Straight wall construction reduces windage and increases efficiency. Standard 3450 r.p.m. direct-connected 60-cycle ball bearing motor, open or totally enclosed types. Capacities, 100 to 800 cu. ft. per min. at static pressures from ½" to 6".

WRITE FOR LITERATURE AND PRICES

Sutton *Manufacturing Corp.*

112 W. WILSON AVENUE NORFOLK, VIRGINIA

▲ For more details circle NED-763 B7 on enclosed inquiry slip ▲

31-301-D8

CUT record keeping time IN HALF

Here's a book filled with practical ideas for reducing costs and getting better results from card record systems . . . all proved by user experience! Send today for this multi-colored 20-page book on record keeping ideas.

WITH *Cardineer* ROTARY CARD FILES BY **Diebold** INCORPORATED

$64,000 QUESTION . . . PROTECTED BY DIEBOLD

1008 Mulberry Rd., S. E. Canton 2, Ohio

▲ For more details circle NED-764 B7 on enclosed inquiry slip ▲

NEW . . . for Floor-to-Floor Production Flow . . .

Weld-Bilt

"Weld-Bilt" PRODUCTS

VERTICAL TRANSPORTATION

Here's conveyor automation between-floors—one, two, or three floor levels—with minimum remodelling. Automatic loading, unloading, lifting or lowering to match conveyor speed. Controls, brakes, switches, platforms—all engineered to your needs.

Write for profitable suggestions on your own floor-to-floor conveyorizing with Weld-Bilt "Vertical Transportation"

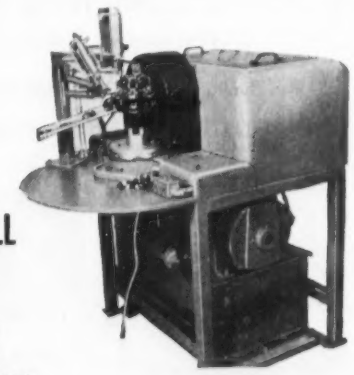
WEST BEND EQUIPMENT CORPORATION

MATERIALS HANDLING ENGINEERS

311 WATER STREET • WEST BEND, WISCONSIN

▲ For more details circle NED-765 B7 on enclosed inquiry slip ▲

GENESEE HYDRAULIC FIELD COIL WINDER FOR ALL RECTANGULAR FIELD COILS IN ELECTRIC MOTORS



1. Automatic turn counter, easily adjustable.
2. Level winding with fluid power.
3. Tandem winding and automatic cut-off for multiple or single coils with automatic ejection.
4. Instantly adjustable speed and torque control of winder. Maximum speed: 3600 rpm.
5. Positive positioning of flyer, with one turn accuracy, requiring no clutches or brakes.
6. Open-type jaws for ease of taping on the machine, to prevent loosely taped coils.
7. Automatic tape dispenser available.
8. Nylon wire guides and pulleys to protect insulation and eliminate wire twist.

Send sample coils for recommendation of model required

GENESEE MACHINE BUILDERS, INC.

1732 HUDSON AVENUE, ROCHESTER 17, NEW YORK

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this important story of a new strapping tape

Vinyl backed and reinforced with glass strands, this new tape is rust proof, mildew proof, water proof, oil proof and grease proof. It's ideal for fast, economical packaging, bundling, palletizing, reinforcing and tear stripping.

Write to:

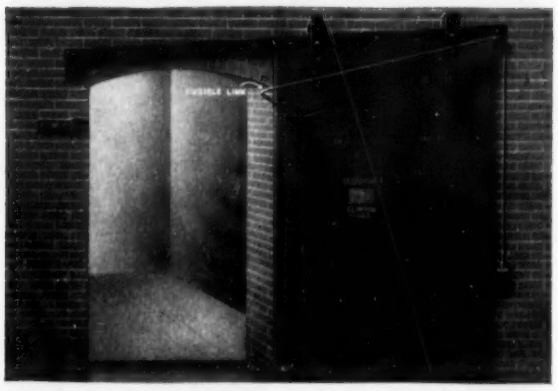
Johns-Manville DUTCH BRAND PRODUCTS
7800 WOODLAWN AVENUE • CHICAGO 19, ILL.

▲ For more details circle NED-767 B7 on enclosed inquiry slip ▲

COBURN

FIRE DOOR HARDWARE

...for all types of tin-clad sliding fire doors



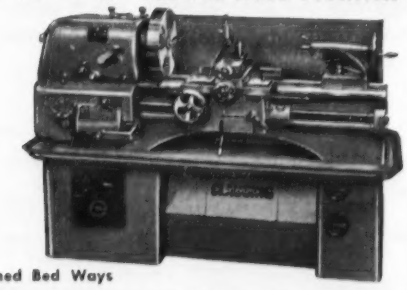
The complete range of Coburn Hardware for inclined or level slide tin-clad doors enables you to install fire doors that completely comply with all local fire ordinances. Manufactured under the supervision of Underwriters' Laboratories, Inc. Get the full details today. Write for Catalog No. 210 to Coburn Sales and Engineering, 56 Sterling St., Clinton, Mass.

CF&I **COBURN PRODUCTS**
PRODUCTS OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL AND IRON CORPORATION
3458

▲ For more details circle NED-768 B7 on enclosed inquiry slip ▲

SEE HOW MUCH MORE YOU GET WITH CLAUSING COLCHESTER

13" - 15" - 17" Geared-Head Precision Lathes



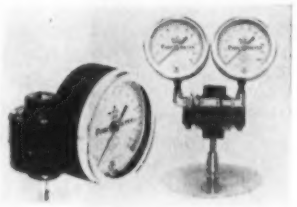
Hardened Bed Ways

BIG CAPACITY — larger spindle capacities: thru-hole 3 1/16" for 17", 2 1/16" for 15", 1 9/16" for 13"; nose taper key drive: L-2 for 17", L-1 for 15", L-0 for 13".
HEAVY-DUTY CONSTRUCTION — Geared-head and quick-change box run in bath of oil, all gears shaved and hardened. Hardened, ground ways. Beds 50% iron, 50% steel.
PRECISION PERFORMANCE — built to American toolroom lathe standards of accuracy. GAMET MICRON tapered roller bearings.
OUTSTANDING QUALITY and VALUE — Clausing-Colchester lathes are acknowledged the world over to be the finest values and the most accurate in their class.
PRICES — 13" cabinet base models, including motor and controls, start at $1952 . . . 15" (illustrated) $2744 . . . 17" at $4345. 5 straight bed and 5 gap bed models available, with choice of 1 or 2 speed motors.
PROMPT DELIVERIES — through your authorized CLAUSING COLCHESTER dealer. Write for ILLUSTRATED CATALOG

CLAUSING COLCHESTER CLAUSING DIVISION ATLAS PRESS COMPANY
2-113 N. PITCHER STREET, KALAMAZOO, MICHIGAN

▲ For more details circle NED-769 B7 on enclosed inquiry slip ▲

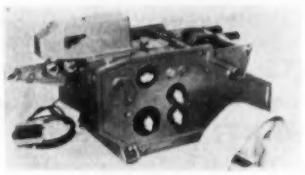
FORCE METER
measures load, force and thrust



Mechanical loads and applied forces measured by the model 150 and 300 ForcOmeters are converted to a proportional hydraulic pressure which is indicated on a direct reading gage. Models are offered with different size diaphragms and related parts for determining heavy loads without excessive hydraulic pressures. Instrument is available with two dials for very wide ranges (right). With suitable jigs, it can be used to measure tensile loads. Standard dial size is 4½ in., with larger dials optional. Made by **Charles W. Schneible Co.**, Dept. N, 32 Lee Ct., New Rochelle, N. Y.

▲ For more details circle NED-770 B7 on enclosed inquiry slip ▲

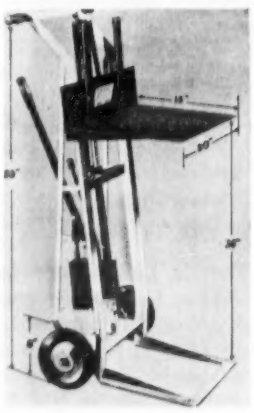
ELECTRIC LABEL DISPENSER
feeds 240 running inches per minute



Application of pressure-sensitive labels in industry has been broadened with development of this automatic electric label dispenser. Unit handles Able-Stik pressure-sensitive and other types of paper labels which do not require previous moistening or preapplication treatment. It will feed up to 240 running inches per minute, or the equivalent of 120 of the labels shown. Device frees labels from backing for immediate affixing to package. Labels and dispenser are made by **Allen Hollander Co.**, Dept. ND, 385 Gerard Ave., New York 51, N. Y.

▲ For more details circle NED-771 B7 on enclosed inquiry slip ▲

PLATFORM LIFT TRUCK
raises 500 lb 54-in. in ½-minute



Manually operated four-speed hydraulic pump and ram of the Shop Caddy portable platform lift truck raises 500-lb loads 54 in. from the floor in ½-minute. Speed adjustment permits faster raising of lighter loads. Truck features a 20 x 16-in. steel platform, 8-in. roller bearing Texite wheels, foot rest for balancing loads and balance forks to prevent tipping. Made by **Grand Specialties Co.**, Dept. PC, 3101 W. Grand Ave., Chicago 22, Ill.

▲ For more details circle NED-772 B7 on enclosed inquiry slip ▲

Dependable Spring Power

RELIANCE Spring Lock Washers

For "Stay-Tight" Fastenings

Approved Source for AN 935 Specifications

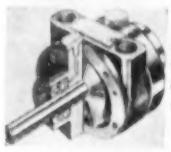
Send for FREE Engineering Bulletin W-50

EATON — RELIANCE DIVISION — MANUFACTURING COMPANY
CHARLES AVENUE MASSILLON, OHIO
SALES OFFICES: NEW YORK CLEVELAND DETROIT CHICAGO ST. LOUIS SAN FRANCISCO MONTREAL

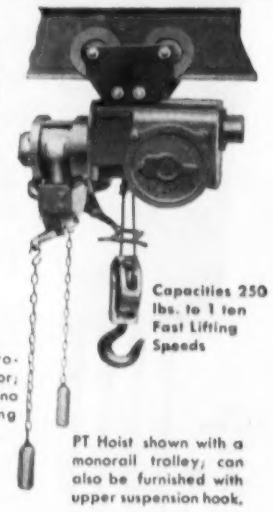
509 CHARLES AVENUE MASSILLON, OHIO

▲ For more details circle NED-773 B7 on enclosed inquiry slip ▲

PNEUMATIC HOIST with ROTARY AIR MOTOR



Pulseless, rotary, air motor; no pistons, no reciprocating parts



Capacities 250 lbs. to 1 ton Fast Lifting Speeds

PT Hoist shown with a monorail trolley; can also be furnished with upper suspension hook.

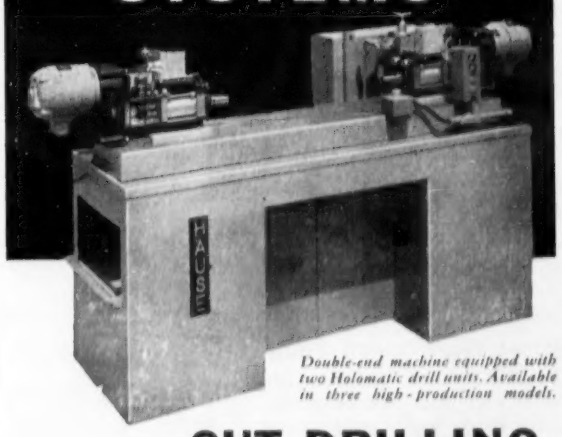
- Worm Geared
- Compact, Light Weight
- Exceptionally Smooth Running
- Close, Sensitive Control

• *Write for PT Bulletin 708*

DETROIT HOIST & MACHINE CO.
8226 Morrow St., Detroit 11, Mich.
Designers and Manufacturers Since 1905

▲ For more details circle NED-774 B7 on enclosed inquiry slip ▲

Holomatic SYSTEMS



Double-end machine equipped with two Holomatic drill units. Available in three high-production models.

CUT DRILLING-TAPPING TIME

Model 24 — Holomatic Drill Unit Electric Motor Driven Spindle

Model 14 — Holomatic Drill Unit Air Motor Driven Spindle

Model 24 — Holomatic Unit For Drilling and Tapping

Model 24 — Holomatic for Deep Hole Drilling

Automatic Drill Press: Available in four base lengths with 1, 2, 3 or 4 Holomatic units vertically mounted.

● The modern high-production method for all automatic spindle type operations. Available as individual, self-contained power head units for installation on existing production machinery or as complete base-mounted machines with automatic controls.

Holomatic units operate on shop air line pressures for thrust and feature a self-contained hydraulic system for positive, accurate spindle travel and feed regulation. Traverse and feed rates are infinitely adjustable. Automatic, manual cycling, skip drilling, stops or dwell operations are easily arranged. Built-in air control valve simplifies set-ups and cuts installation time. Holomatic units operate efficiently at *any* angle.

Amazingly versatile, accurate, the Holomatic systems can be quickly and easily set-up for single or multiple operations. A Holomatic system in your plant will quickly and easily pay for itself through savings in time, money and tools.

Survey your production equipment now and visualize how easily and economically a Holomatic unit or complete system could boost your production rates.

Write today for complete information, specifications and prices ... or, ask your Hause representative for an actual, obligation-free demonstration of the Holomatic System right in your plant!

Hause ENGINEERING
MONTPELIER • • OHIO

▲ For more details circle NED-775 B7 on enclosed inquiry slip ▲

GIANT...NEW...XXH

Gilmer 1¼" PITCH

"TIMING" BELTS

for really heavy drives up to 1000 HP!

Here in actual size is the new *Double-Extra Heavy Duty* "Timing" Belt now available to drive heavy, high-torque machinery! Molded rubber teeth grip matching pulley grooves, prevent slippage, eliminate drive lubrication. Flexible, high-tensile steel cables provide highest strength-to-weight ratio. Compact, quiet, long-lived and maintenance-free. Consult your NYB&P Distributor. Look for him in the yellow pages of your phone book.

NYB&P NEW YORK BELTING & PACKING CO.
1 MARKET STREET, PASSAIC, NEW JERSEY

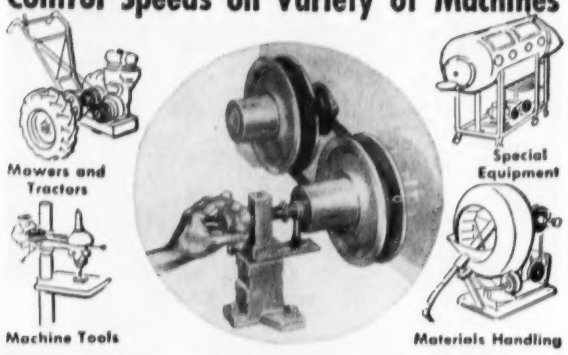
AMERICA'S OLDEST MANUFACTURER OF INDUSTRIAL RUBBER PRODUCTS

For more details circle NED-777 B7 on enclosed inquiry slip

SPEED SELECTOR

VARIABLE PITCH SHEAVES

Control Speeds on Variety of Machines



New! Wide Speed Range! Low Cost Sheaves

Speed Selector Sheaves can give your machines or equipment extra wide-range speed control on fixed centers. Efficient, rugged, simple to use — low in cost! Write for Illustrated Bulletin.

CATALOG FREE! WRITE TODAY

SPEED SELECTOR INC.

P. O. BOX 312-N · CHAGRIN FALLS, OHIO

For more details circle NED-778 B7 on enclosed inquiry slip

METZGAR Specialty CONVEYOR Units

and a full line of standard GRAVITY · POWER BELT · LIVE ROLLER and FLOOR TO FLOOR CONVEYORS · · · ASK FOR DETAILS

METZGAR CONVEYOR CO.

416 Douglas N.W. Grand Rapids 4, Mich.

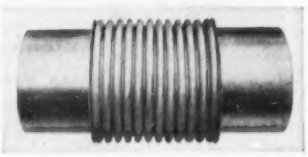
For more details circle NED-779 B7 on enclosed inquiry slip

STEAM CLEANER
produces steam at 120 psi

Venturi type solution-lifting steam cleaning gun offered with the model 45 steam cleaner mixes a concentrated alkaline cleaning solution with the jet of 120-psi steam. Solution may be turned off for rinsing with clean steam. Cleaner consumes 1¼ gal of No. 1 fuel oil per hour to turn 45 gph of water into steam. A ⅓-hp, 110-v motor drives the positive displacement water pump. All operating switches and controls are mounted on the cabinet exterior. Gun and 16 ft of wire braided steam hose and cleaning solution hose are included. Burners for kerosene and No. 1 fuel oil or city gas and propane are available, as is a three-wheel kit. Made by **Vapor Heating Corp.**, Dept. PR-56, 6420 W. Howard St., Chicago 31, Ill.

For more details circle NED-780 B7 on enclosed inquiry slip

EXPANSION JOINTS
packless corrugated type offered in various metals, 3-72-in. diameters



Redesigned line of packless corrugated expansion joints is suited for use in power, heating, industrial and process piping applications. Several types classified according to pressure-temperature conditions to be encountered are available. Changed corrugation height results in improved flexibility and more uniform movement per corrugation. High line pressure joints have wrought steel reinforcing rings.

All joints are available in any weldable alloy, including stainless steel, Monel, Inconel and nickel, for 3 to 72-in. pipe diameters. Internal liners which streamline flow and minimize turbulence, flanged or welding ends and external covering shields to protect the corrugations are offered. Hinged, tandem or balanced models for use in pipelines subject to angular or lateral movement alone or in combination with axial movement can be obtained. Made by **Badger Mfg. Co.**, 232 Bent St., Cambridge, Mass.

For more details circle NED-781 B7 on enclosed inquiry slip

Plastic Laboratory Supplies

Palo Laboratory Supplies, Inc.—Plastic laboratory supplies cataloged in 16-page form E956 are offered in polyethylene, polyurethane, polyvinyl and nylon. Products covered include baskets, beakers, bottles, carboys, flasks and funnels, graduates, jars, pails, sheet, tanks, tubes and valves and fittings.

For more details circle NED-782 B7 on enclosed inquiry slip

Snap-on LOXOCKETS®

GRIP SAFE, GRIP SURE

In a close-quarter, big operation like this, the minimum wall thickness and maximum strength of *Snap-on* Extra Heavy-Duty Loxockets make them the ideal tool choice. The tough, sure-fitting sockets grip tight . . . powerful slide-bar or ratchet handle provides tremendous turning leverage. Extension bars are used to avoid obstructions. All units lock together securely to provide safe working conditions.

Whatever your nut-turning problems on product assembly or plant maintenance operations, your *Snap-on* man can give you a specialized tool service and recommend the best tools for your need. Write us or call your nearest *Snap-on* branch. Free catalog is yours for the asking.

No. 521-EHD-B set of EXTRA HEAVY-DUTY *Snap-on* Loxocket Wrenches — 21 tools in all . . . 1-7/16" to 3⅛".

*Snap-on is the trademark of Snap-on Tools Corporation.

SNAP-ON TOOLS CORPORATION
8110-B 28th Avenue
Kenosha, Wisconsin

For more details circle NED-783 B7 on enclosed inquiry slip

✓ TO RUSTPROOF Iron and Steel Surfaces
✓ TO PREVENT CORROSION at Welded Joints
✓ TO REPAIR Damaged Galvanized Surfaces

COLD GALVANIZE

Galvanize surfaces and welded joints the fastest, most effective way. Use DRYGALV! It produces a coating with a high proportion of metallic zinc—approximately 95% in the dried film—equal to galvanizing. DRYGALV can be applied by brush or spray after removing loose rust and scale. It is non-toxic, dries to the touch in 15-30 minutes and will withstand the 1000 hour salt spray test. If color is desired, a good grade of paint can be applied over DRYGALV after about 8 hours.

Write, wire or call for prices and additional details today.

AMERICAN SOLDER & FLUX COMPANY
19th & Willard Streets • Philadelphia 3, Pa. • Phone: BAldwin 6-1800

For more details circle NED-784 B7 on enclosed inquiry slip

a great name in lift trucks

HydroLectric

. . . this powerful electric tractor hauls one or more trailing units with speed, safety and ease of operation.

Quiet and safe enough for hospitals—yet rugged enough for steel mills.

THIS TRUCK PAYS FOR ITSELF WITH THE SAVINGS IT MAKES

The ease of operation, speed, safety, power and economy of Hydrolectrics, users report, make it possible for them to pay for themselves five to twelve times per year.

The exclusive Hydrolectric modern features give you top performance day in and day out the year around, which today's material handling requires, at the lowest cost.

The one big difference in lift trucks is the exclusive Dyna-Dual power unit of the Hydrolectric

- 2 Drive Wheels instead of one
- 4 Wheel Stability instead of three
- Alloy Gear Transmission instead of chains
- 100% more Steering Ease —Greater Maneuverability
- 50% less Maintenance —Easy Accessibility
- Finger-Tip Control —Greater Safety

We invite you to learn more about it by writing for Bulletin KT.

Hydrolectric moves more goods, quicker, easier and safer anywhere at less cost.

STUEBING Designed • Engineered • Built

LIFT TRUCKS, INC., / CINCINNATI 14, OHIO

THERE IS A TRUCK FOR EVERY PURPOSE TO HANDLE ANY KIND OF MATERIAL.

For more details circle NED-785 B7 on enclosed inquiry slip

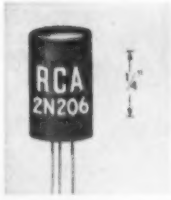
. . . to increase boiler efficiency and lower fuel cost than . . . BROOKS' FIRE-SCALE AND SOOT DISINTEGRATOR Formula 806

- Non-injurious to boiler metal
- Non-explosive
- Prevents soot, carbon and fire-scale
- Cleans fire side of boiler flues, fire brick, chimney and smoke stack
- Increases boiler efficiency, combustion and evaporation. Reduces soot, carbon and scale accumulations to ash, which is carried away with the draft. • More heat per ton of coal

BROOKS Chemicals, Incorporated
PLANTS
3304 East 87th Street CLEVELAND 27, OHIO
461 Cumberland Avenue HAMILTON, ONTARIO
OFFICES IN PRINCIPAL INDUSTRIAL CITIES
SINCE 1876

For more details circle NED-786 B7 on enclosed inquiry slip

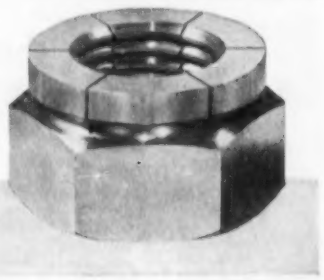
JUNCTION TRANSISTOR
for audio-frequency amplifier use



Hermetically sealed 2N206 junction transistor of the germanium p-n-p alloy type is designed for use in audio - frequency amplifier applications. It meets military requirements and utilizes a metal envelope with external insulating coating and has flexible leads which can be soldered or welded to the associated circuit. In a common-emitter type of circuit with base input, current transfer ratio is 47, low frequency power gain is 46 decibels, noise factor is 9 decibels and maximum collector dissipation is 75 mw for an ambient temperature of 25° C. Made by **Radio Corp. of America,** Semiconductor Div., Somerville, N. J.

For more details circle NED-789 B7 on enclosed inquiry slip

specify standard



FLEXLOC® SELF-LOCKING NUTS

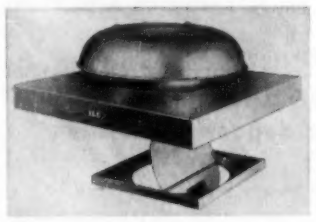
FLEXLOC DESIGN FEATURES
- one-piece, all-metal construction
- resilient locking section
- controlled locking torques
- lock and stop nut in one
- every thread carries its full share of load

DO YOU KNOW? FLEXLOCS do not have to be seated to lock. They lock anywhere on a bolt as soon as the locking threads are fully engaged. And FLEXLOCS are stocked by authorized industrial distributors in a full range of sizes from #0 to 2". Write for Bulletin 866. STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

STANDARD PRESSED STEEL CO.
FLEXLOC LOCKNUT DIVISION SPS
JENKINTOWN PENNSYLVANIA

For more details circle NED-792 B7 on enclosed inquiry slip

ROOF VENTILATORS
in capacities from 287 to 938 cfm

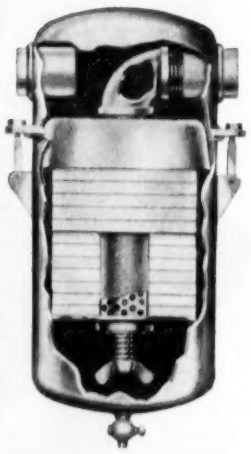


Added to LSQ roof ventilator line are three low - silhouette models ranging in height from 6¾ to 12¾ in. and capacities from 287 to 938 cfm. Motors are shaded-pole type, totally enclosed, with permanently lubricated bearings. Features include unit construction, with ventilators completely enclosed in aluminum housings and vertical type Q propeller fans mounted directly on motor shaft. Made by **Ilg Electric Ventilating Co.,** 2854 N. Pulaski Rd., Chicago 41, Ill.

For more details circle NED-790 B7 on enclosed inquiry slip

keeps moisture out of Air Operated Equipment

MODEL AAPHS ABSORPTION FILTER



If you want to protect air-operated equipment from damage caused by moisture and other foreign matter, a Dollinger Absorption Filter is just the thing.

Illustrated is the Model AAPHS, which is used by thousands of manufacturers from coast to coast to eliminate process shutdowns and save thousands of dollars annually.

Why take chances with water that can rust and clog your equipment, ruin your work, or shut down processes. The unique design of Dollinger Absorption Filters eliminates every trace of moisture in air lines.

Write, wire, or call today for complete facts. Ask for Bulletin 200. Dollinger Corporation, 49 Centre Park, Rochester 3, N. Y.

DOLLINGER STAYNEW FILTERS

For more details circle NED-787 B7 on enclosed inquiry slip

THREE-POLE RELAY
less than 1 cu-in. in size

This KM series subminiature three-pole relay occupies less than 1 cu-in. of space yet affords a multiplicity of action. Applications cover diverse products such as small business machines, alarm systems, automated toys, remote controls and intercom systems. Relay has three-pole double-throw silver contacts rated 2 amp, 115 v, 60-cycle resistive. Voltage range is up to 48 v dc nominal with pull-in at 75 per cent of nominal value. Coil resistance is up to 6700 ohms and power requirement is 1 w. Relay operates in −45 to 55° C range, will resist 30 G shock and 5 vibrations in 10 to 55 cps range. Made by **Potter & Brumfield, Inc.,** 270 N. Main St., Princeton, Ind.

For more details circle NED-791 B7 on enclosed inquiry slip

COMPLETELY SEALED CASTERS

Another *first* for Albion casters! A completely sealed caster that stays sealed . . . completely eliminating the need for periodic maintenance due to grease loss, dirt, debris, water or other foreign matter.

Albion casters have been completely redesigned to incorporate precision *moulded* Synthi-Rubber ring gaskets around the load raceways and the wheel axle ends. In addition, a formed steel, leakproof retainer cup is press-fitted over the thrust raceway . . . thus, Albion's *completely sealed* casters outlast ordinary casters and save your equipment dollars.

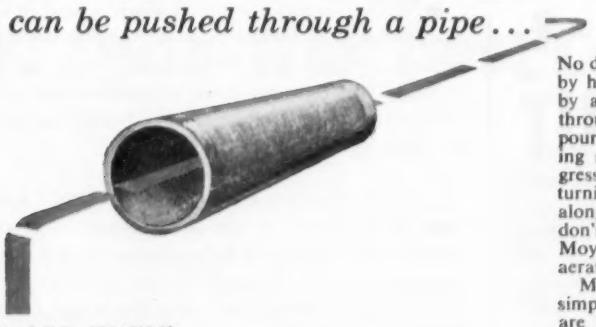
HERE'S WHY . . . Albion caster engineers would not accept the so-called "sealed casters" available which employed flat rubber, felt or steel baffles as "seals". As a result, they designed and developed precision *moulded* Synthi-Rubber gaskets to guarantee a truly sealed caster to solve your caster problems.

Albion's new completely sealed casters are available in a broad range of popular sizes and wheel sizes to suit your needs.

ALBION INDUSTRIES, INC.
ALBION, MICHIGAN

For more details circle NED-793 B7 on enclosed inquiry slip

if it can be pushed through a pipe . . .



you can pump it with a

MOYNO®

No doubt, in your plant, certain materials are being moved by hand expensively that could be pumped economically by a Moyno. They pump anything that can be forced through a pipe . . . from very thin liquids to heavy, non-pourable abrasive substances . . . even materials containing suspended particles! As the illustration shows, progressing cavities, formed by the helical screw-like rotor turning inside the double-helical stator, move smoothly along, carrying the material with them . . . the cavities don't squeeze the substance . . . can't stick or gum up. Moyno pumps will not cause churning, foaming . . . won't aerate or vapor-lock!

Moynos are adaptable for a wide range of substances simply by modifying the materials the pumping elements are made of. They are available to pull up to 29" of vacuum while discharging under pressure. If you have a pumping problem, chances are a Moyno will solve it!

Look in the yellow pages for the name of your nearest R & M Moyno Pump representative, or write today, for Bulletin 30-NE.

Industrial type Moyno . . . available to 500 gpm, pressures to 1000 psi

ROBBINS & MYERS, INC.
SPRINGFIELD, OHIO / BRANTFORD, ONTARIO

For more details circle NED-788 B7 on enclosed inquiry slip

For more details circle NED-794 B7 on enclosed inquiry slip

USEFUL ASKANIA BULLETIN on

EDGE POSITION CONTROL

Describes and Illustrates

Methods of Obtaining Precise Belt and Conveyor Tracking

Here's a new informative bulletin by the Askania Regulator Company which shows:

1 How to automatically control edge position when:

A. Carrying material into a processing unit by means of a conveyor belt

B. Lateral weave of belt must be eliminated so as to keep material that the belt is carrying from falling off

C. Belt tracking is a problem

2 How to guide belt at intermediate points or at idler roll position

3 And specifically—WHAT makes the ASKANIA EDGE POSITION CONTROL more accurate, easier to install and maintain, easy to apply to any equipment traveling at any speed.

WRITE FOR BULLETIN NO. 39.1 to Askania Regulator Co., 258 E. Ontario, Chicago 11, Ill.

ASKANIA REGULATOR COMPANY
"CONTROLS FOR INDUSTRY"
HYDRAULIC, ELECTRONIC CONTROLS & SERVOS, GENERAL SYSTEMS, ENGINEERING & COMPUTER SERVICE, VALVE ACTUATORS & CYLINDERS
A SUBSIDIARY OF CPE
For more details circle NED-795 B7 on enclosed inquiry slip

An all-purpose portable belt conveyor, work table and straight-line production system, with and without side leaves. Available up to 100 ft. long in 10 ft. easily assembled sections.

PORTABLE OR STATIONARY

The perfect mechanized table for assembly, inspection and packaging operations. Available in steel or stainless steel with fixed or variable speed.

FREE!

ISLAND EQUIPMENT CORP. Dept. NED 2
27-01 Bridge Plaza North
Long Island City 1, N. Y.

Please send Bulletin 1P-1 on Island Unitized Conveyor Tables.

NAME_____
ADDRESS_____
CITY_____ STATE_____

For more details circle NED-796 B7 on enclosed inquiry slip

DRILL PRESS
14-in. model for wood and metal

Counterbalanced, rear-hinged, full-length belt guard swings up out of the way for cleaning and belt changes on this Delta 14-in. metal and woodworking drill press. Its pivoting motor mounting plate permits quick belt tension release to facilitate speed changes, and a spring-loaded plunger automatically restores correct operating tension. Additional features are quill for 4 5/16-in. spindle travel, side opening for spindle removal, easily operated spindle return tension adjustment and work table with slots and clamping ledges at sides. A pushbutton starter in front is available. Made by **Rockwell Mfg. Co.**, Delta Power Tool Div., 468 N. Lexington Ave., Pittsburgh 8, Pa.

For more details circle NED-797 B7 on enclosed inquiry slip

VACUUM COATING UNIT
also suited for degassing, melting

Laboratory, pilot plant and limited production coating of various materials with vaporized metals can be performed with the type LC1-14A vacuum system. It can also be used for degassing liquids, crystal pulling and growing, melting small metal samples and degassing vacuum tube electrodes. Pump-down time with a clean, dry system is 6 minutes to 0.5-micron Hg, with an ultimate pressure of 2×10^{-5} mm Hg. A liquid nitrogen trap will reduce this by a factor of 10 (2×10^{-6}). Work chamber is a 14 x 24-in. Pyrex bell jar. Various accessories are available. Made by **Consolidated Electrodynamics Corp.**, Rochester Div., 1775 Mt. Read Blvd., Rochester 3, N. Y.

For more details circle NED-798 B7 on enclosed inquiry slip

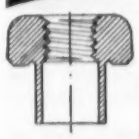
Plastic Laminate Parts

Mica Insulator Co.—Illustrated 8-page booklet on Lamicoid plastic laminates describes the range of parts produced by punching, turning, milling, automatic screw machining and other processes. Molded, molded-macerated and postformed parts are shown as well as dials, charts and signs made from decorative grades of Lamicoid.

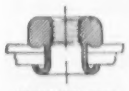
For more details circle NED-799 B7 on enclosed inquiry slip

NEW Tubular's 2 in 1 fastener®

PERMA-NUT



1. makes a *PERMANENT* rivet fastening with threaded *NUT* head
2. provides convenient and fast *ASSEMBLY* or *DISASSEMBLY* of parts
3. fastened *AUTOMATICALLY* with *TUBULAR's* Automatic Riveting Machines



PERMA-NUT after Setting with a Roll Clinch

- functions as a rivet, permanently fastening two or more parts, making nut available to fasten other parts.
- permanently clinches nut to a single part for fastening of other parts.
- prevents loss of nut.
- allows installation of nuts in hard-to-reach locations or which become "blind" after assembly.
- eliminates drilling and tapping certain holes.
- prevents nut from turning — sixteen radial serrations bite into part when PERMA-NUT is clinched.
- will not pull out of rivet clinch when properly set — clinch is stronger than the threads of nut head.

PERMA-NUT Flush Mounts 2 Parts

PERMA-NUT Fastens 2 Parts, Uses Clinch for Spacer, Fastens 3rd Part into Nut

Available in steel, brass or 5056 aluminum, PERMA-NUTS are supplied in standard thread sizes of: 3-48NC-2, 4-40NC-2, 5-40NC-2, 6-32NC-2, 8-32NC-2, 10-24NC-2 and 10-32NF-2. PERMA-NUTS of special sizes or with various kinds of plating can be supplied to meet special applications.

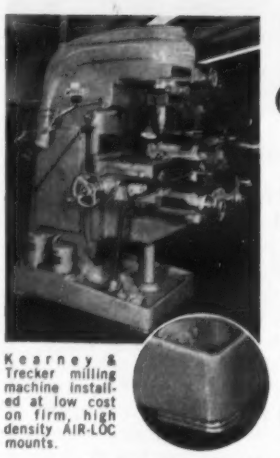
Send for sample, design data and specifications of standard PERMA-NUTS.

Tubular Rivet & Stud Company
Wollaston (Quincy) 70, Mass.
See your local classified directory for phone numbers

BRANCH OFFICES
BUFFALO • CHARLOTTE
CHICAGO • DALLAS • DETROIT
INDIANAPOLIS • LOS ANGELES
NASHVILLE • NEW YORK CITY
PHILADELPHIA • ST. LOUIS
SAN FRANCISCO • SEATTLE

For more details circle NED-800 B7 on enclosed inquiry slip

PATENTED MACHINERY MOUNT MADE OF VINYL and CORK REDUCES VIBRATION and NOISE



Kearney & Trecker milling machine installed at low cost on firm, high density AIR-LOC mounts.

Air-Loc® 4·17·4

machine mounts give you . . .

1. *Complete resistance to oil, water, etc.*
2. *Permanent precision shimming is easy.*
3. *Reduced machine vibration & noise—as much as 85%.*
4. *Low initial cost.*
5. *Reusable when you move machines.*
6. *Eliminate bolting and cementing.*

Free booklet tells the whole story. Send for your copy, and free samples.

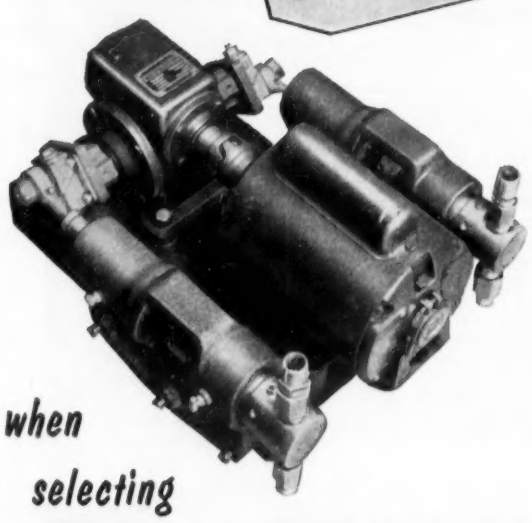
Air-Loc® DIVISION

CLARK, CUTLER, McDERMOTT CO.
FRANKLIN, MASSACHUSETTS

For more details circle NED-801 B7 on enclosed inquiry slip

PROPORTIONEERS, INC.

look beyond the PRICE TAG



when selecting

WINSMITH SPEED REDUCERS

● Wherever fluid proportioning is used in industry, the Model 1106 Proportioneer Pump is known for its work-horse stamina, its watch-like accuracy. Helping to build this reputation for ruggedness and precision, Winsmith Speed Reducers have been selected for use on these pumps since 1932.

Proportioneers, Inc., a division of B-I-F Industries, rate performance as the main reason for continued selection of Winsmith reducers but in looking beyond the price tag and the performance they pay for — they find a highly important *extra* that's not for sale but given freely at Winsmith — that's *co-operation* in helping customers to solve speed reducer problems.

As Proportioneers, Inc., puts it: *". . . co-operation is one of those things that can't be covered by a price tag but it is one of the big reasons why we have stayed so long with Winsmith."*

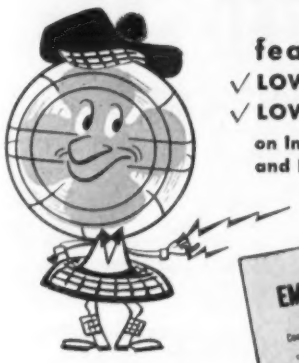
When you select Speed reducers, keep this *extra* in mind. The services of our engineering department are always at your service to help you select the right reducer for every application from 1/100 to 85 h.p.

WINSMITH SPEED REDUCERS

WINSMITH, INC.
119 Eaton Street, Springville (Erie County) N. Y.

For more details circle NED-802 B7 on enclosed inquiry slip

Here's EMERSON-ELECTRIC's big fan line for 1957



featuring
✓ LOW INITIAL COST
✓ LOW OPERATING COST
on Industrial, Commercial and Building Fans

ALL IN A NEW CATALOG
Loaded With PHOTOS, FACTS and FIGURES

Get your copy NOW
Write for Bulletin No. 2006.
The Emerson Electric Mfg. Co.
St. Louis 21, Missouri

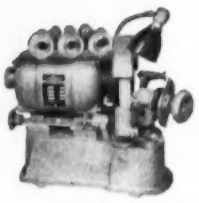
EMERSON OF ST. LOUIS ELECTRIC Since 1890

▲ For more details circle NED-803 B7 on enclosed inquiry slip ▲

STOP WASTING DRILLS!

NEW LIFE FOR OLD DRILLS WITH BLACK DIAMOND DRILL GRINDER!

FOR DRILLS UP TO ¾"...
The BLACK DIAMOND Drill Grinder restores an old drill to like-new precision sharpness . . . in 10 seconds! Any inexperienced man (or woman!) is an expert grinder with this unit. Both lips ground at once . . . web-thinning equally simple! Pays for itself many times over!



FOR DRILLS UP TO 2½"...
The WORCESTER Drill Grinder (now manufactured by Black Diamond) sharpens 2, 3, or 4-lip drills, flat, flat twisted or chucking, up to 2½". Clearances are easily and instantly changeable, feeding is controlled by micrometer adjustment

FREE BULLETIN
Get all the facts! 4 page illustrated bulletin gives complete story. Write Today!

BLACK DIAMOND
SAW & MACHINE WORKS 72 NORTH AVE. NATICK, MASS.

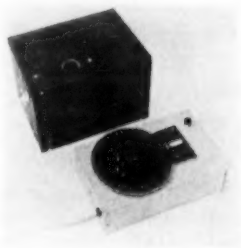
▲ For more details circle NED-804 B7 on enclosed inquiry slip ▲

AIR VALVES
single solenoid, cam and foot types

All friction surfaces of Allenair ¼, ⅛ and ½-in. air valves are hardened and permanently coated with a baked - on lubricant. The four-way models are available as single solenoid, or for foot or cam operation. Air-return type solenoid model will reciprocate at 800 strokes per minute. All are designed for 5 to 150-psi operation. Two built-in speed controls provide cylinder piston control in both directions. Made by **A. K. Allen Co.**, 57 Meserole Ave., Brooklyn 22, N. Y.

▲ For more details circle NED-806 B7 on enclosed inquiry slip ▲

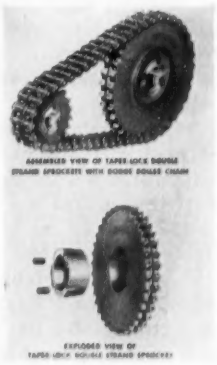
AUTOMATIC CONTROL
positioning accuracy to 0.5 per cent



Unusual application of bridge circuitry gives Model AS automatic positioning control accuracy to within 0.5-per cent and repeatability of 0.25-per cent. Typical application is on a conveyor operating at 100 fpm. Control will select shortest route from any position to desired control point merely by turning control knob to position number and pressing start button. Other uses include remote positioning of valves and dampers; remote instrumentation in conjunction with indicating instruments; and as control element in automatic selection equipment. Made by **Wallson Associates, Ltd.**, Dept. N, 963 Frelinghuysen Ave., Newark 5, N. J.

▲ For more details circle NED-807 B7 on enclosed inquiry slip ▲

DOUBLE STAND CHAIN SPROCKETS
incorporate Taper-Lock bushings



The same Taper-Lock principle used in mounting Dodge single strand sprockets, sheaves and pulleys is used in this double strand roller chain sprocket. Units, with bushings of desired shaft size, can be mounted without reboring, key-seating or set-screw machining. Available in pitch sizes ranging from ½ to 1 in., sprockets are designed for use with double strand precision ASA chain. Taper-Lock bushing can be reused. Made by **Dodge Mfg. Corp.**, 600 S. Union St., Mishawaka, Ind.

▲ For more details circle NED-808 B7 on enclosed inquiry slip ▲

JELLIFF in Mesh with Industry . . .

Wire Mesh

Specializing in the non-ferrous metals in counts to 200 x 200 or 50 x 750 and widths up to 48" in all commercial weaves

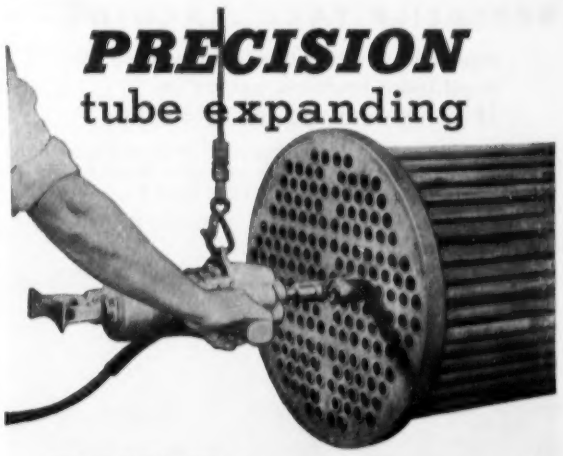
. . . FOR 76 YEARS

address your enquiries to Department 11

THE C.O. JELLIFF MANUFACTURING CORP.
Southport • Connecticut • USA

▲ For more details circle NED-809 B7 on enclosed inquiry slip ▲

PRECISION tube expanding



ELLIOTT electrical control assures tight joints!

The Elliott torque-limiting device enables your operators to get tight, uniform tube joints *every time!* This compact, simple electrical control reduces the chance of tube failure, and tube sheet distortion. By adjusting the Torque Control Knob for the size and kind of tube being rolled, the correct expansion is assured for each tube—regardless of small variations of tube or hole size. A signal lights up, and the motor automatically stops when the tube has been rolled right. Built-in voltage balancer eliminates the need for a voltage regulator.

Elliott Tube Expanders with the Electric Control, described above, form a "package" that takes the guesswork out of tube expanding, and speeds up the operation. For prices and further data, contact the nearest Elliott district office, or write Elliott Company, Lagonda Division, Springfield, Ohio.

ELLIOTT Company

All controls are readily accessible, and in the lid are operating instructions and a table of torque control settings. Box lid is closed when proper setting is made, protecting the control from accidental change of setting or damage from dropped wrench or tool. Rubber gasket keeps out dirt.

Y6-11A

▲ For more details circle NED-810 B7 on enclosed inquiry slip ▲

NEW Cyclo-trell Dust Collector

Here are a few brief facts on Research's new multiple tube mechanical collector. • Collection efficiencies are higher, for a given pressure drop, than other conventional multiple tube collectors. • Gas flow per tube is higher than conventional units. This means fewer tubes per collector and lower total cost for a given capacity.

Higher Collection Efficiency
After testing many types and curvatures of vanes, Research found that this new aerodynamic design resulted in less turbulence, greater centrifugal force and higher collection efficiencies.

Greater Gas Handling Capacity
To develop a higher gas flow capacity than other multiple tube collectors, Research's engineers developed the following design features:

First, by using a 10" diameter inlet tube, instead of the conventional 9" tube, the flow of incoming gas was increased. The next step was to straighten the gas flow as it entered the outlet tube, since a spiraling gas stream creates more resistance than a straight through flow. In the Cyclo-trell this spiral is eliminated, and energy is recovered in the outlet tube by the Outlet Recovery Vanes. By positioning these vanes below the tube, rather than inside the tube, resistance has been further reduced.

This combination of features means greater gas flow per tube, fewer tubes per collector and a lower total cost for a given capacity and efficiency.

Bulletin M gives complete details on design features, efficiency, capacity and detailed dimensional drawings. Write for your copy today.

Research-Cottrell, Inc.

Main Office and Plant: Bound Brook, N. J. • 405 Lexington Ave., New York 17, N. Y. • Grant Building, Pittsburgh 19, Pa. • 228 North La Salle St., Chicago 1, Ill. • 111 Sutter Bldg., San Francisco 4, Cal.

RC 170

▲ For more details circle NED-805 B7 on enclosed inquiry slip ▲

If crane rail maintenance budgets are a problem in your plant, here's a suggestion: Send for this informative booklet which explains how you can reduce maintenance costs. It describes a special technique of rail-joint assembly, "floating rail" fastenings and three USS Special Crane Rail Sections—designed specifically for longer life under heavy wheel loads. For your free copy, write to United States Steel, Room 5557, 525 William Penn Place, Pittsburgh 30, Pa.

USS SPECIAL CRANE RAIL SECTIONS USS

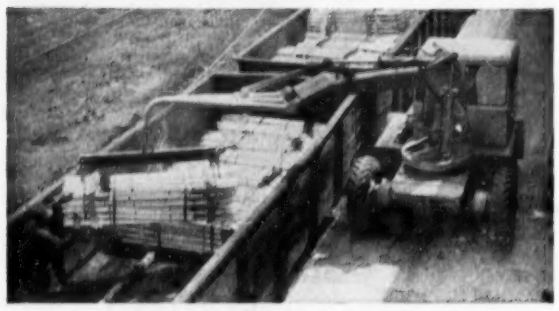
UNITED STATES STEEL

For more details circle NED-814 B7 on enclosed inquiry slip

VERSATILE YARD MACHINE

replaces several special-purpose machines; features exclusive 180° boom swing for tight spots

Pettibone's versatile Speed Swing 6-in-1 yard machine, with crane attachment, was recently selected by a well-known steel company to load steel fence posts in



close quarters. Crane, fork, bucket, dozer, car spotter and snow removal attachments enable Speed Swing to replace several special-purpose yard machines. 2 or 4 wheel power-booster steering, Torqmatic power-shift transmission and planetary axles maneuver Speed Swing into tight spots. The exclusive 180° boom swing gets work done in places which no other machine can touch. Send for Bulletin P-264-NB.

THE NEW YARD SENSATION PETTIBONE SPEED SWING

Pettibone Mulliken Corp., 4700 W. Division St., Chicago 51, Ill. • SPaulding 2-9300

For more details circle NED-815 B7 on enclosed inquiry slip

new SQUARE D Relay

Really Compact • 2-pole version of this new Class 8501 relay measures only 3⅝" high x 2⅝" wide. 4-pole device measures 3¹¹⁄₁₆" high x 2¹¹⁄₁₆" wide.

Easy Maintenance • Complete disassembly in 20 seconds by loosening two screws.

Write for Bulletin 8501. Address Square D Company, 4041 North Richards Street, Milwaukee 12, Wisconsin.

NOW...EC&M PRODUCTS ARE A PART OF THE SQUARE D LINE

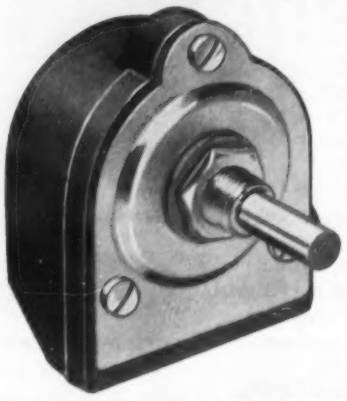
SQUARE D COMPANY

For more details circle NED-816 B7 on enclosed inquiry slip

VARIABLE RESISTORS

are low noise, 5-w molded type

Solid molded resistance element having long life and a low noise level are featured in type H variable resistor for industrial electronic applications. The



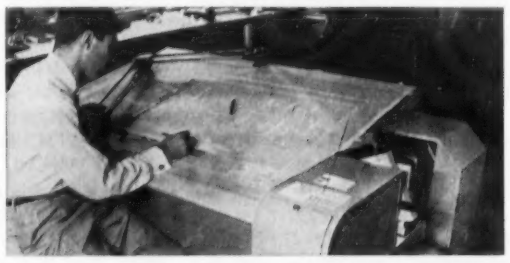
5-w unit has carbon contact brushes which bridge the molded concentric collector ring. Maximum working voltage is 750 v dc, resistance range is 50 ohms to 2 megohms and operating range is from −55 to 120° C. It is stable in performance under widely varying temperature, humidity and voltage. Screw or bayonet terminals or solder lugs are available. Made by **Allen-Bradley Co.**, 1334 S. Second St., Milwaukee 4, Wis.

For more details circle NED-817 B7 on enclosed inquiry slip

DRAFTING REPRODUCER

makes clear copies of large drawings on paper, cloth or film

Engineering drawings up to 36 x 54 in. and even longer can be reproduced by the 105-mm Micro-Master film system. It makes full-sized second originals on



Photact papers and cloth, or on Stabilene film. Quality is such that original pencil or ink tracings can be safely destroyed. Reproductions are clear and free of distortion. Process can restore most worn or soiled tracings, reportedly yielding a 75 per cent improvement.

The 105-mm negative (about 4 x 6 in.) can usually be read with the naked eye for identification. Card prints of 4 x 6 in. can be made for filing. Negatives will fit standard 5 x 8-in. steel filing drawers. Composites can be made by ganging up to eight letter-sized originals on one negative. Special lighting allows photographing of two-sided tracings or other transparencies. Auxiliary equipment includes screen projectors, table-top viewers with an 8 x 10-in. surface and large viewing tables for drafting room use. Developed by Micro-Master, Inc., and available from **Keuffel & Esser Co.**, 300 Adams St., Hoboken, N. J.

For more details circle NED-818 B7 on enclosed inquiry slip

"SKILL IN UNSKILLED HANDS"

Write today for prices and five best ways to stamp name-plates and parts.

For stamping letters and numbers into steel, stainless steel, brass, aluminum, plastic fiber and other materials the ACROMARKER Name-Plate and Parts Stamping Machine will save money every day and enable unskilled help to do a professional job.

Built in hand and foot operated models. 1/16" to ⅜" die sizes.

"The Original Marking Specialists"

ACROMARK

THE ACROMARK COMPANY

7-11 MORRELL ST., ELIZABETH, NEW JERSEY

For more details circle NED-819 B7 on enclosed inquiry slip

NOW... Republic Steel Lockers are BONDERIZED... to preserve fine finish, protect against rust

Bonderizing provides a superior base for anchoring enamel finish to the steel surface. At the same time it guards against the spreading of under-finish corrosion which eventually causes peeling and flaking.

You'll boost employee morale with handsome Republic industrial lockers that look better longer. Three locking systems are available. Your Berger sales representative will help with ideas . . . suggest the most economical locker for your own particular requirements. Call him or write us for literature showing specifications and prices.

REPUBLIC STEEL
BERGER DIVISION
1022 Belden Ave., Canton 5, Ohio

For more details circle NED-820 B7 on enclosed inquiry slip

6000 PSI

wide range, high-flow regulator

maintains high degree of accuracy with regulated pressures from 0 to 5000 psi!

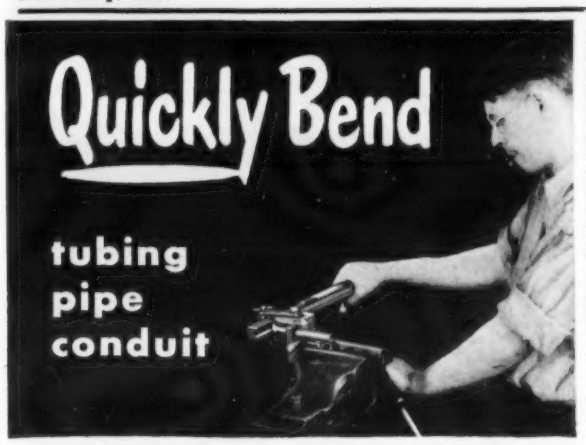
performance features:

- Normal inlet pressure of 6000 psi!
- Wide adjustment range of 0 to 5000 psi with extreme sensitivity!
- Burst — 15,000 psi!
- Maximum required handle torque 30 inch lbs. due to planetary gear system in handle!
- Adaptable for use with air, nitrogen, helium and gaseous oxygen!
- ¼" tube straight thread gasket seal bosses per AND10050!
- Also available in AND10053 ¼" pipe thread!
- Internal valve and filter are removable without disturbing spring, diaphragm structure!
- Internal relief valve adjustable over entire outlet pressure range!
- Internal 5 micron filter!
- Bubble-tight shut-off!
- Adjustable mounting!

Please send me engineering data information on:
Part 110700—Air, nitrogen, helium. _____
Part 111700—Gaseous oxygen only. _____

APCO *ACCESSORY PRODUCTS CORP.*
Dept. K-1 616 W. Whittier Blvd.
Whittier, Calif. Phone: OXford 3-3747

For more details circle NED-821 B7 on enclosed inquiry slip



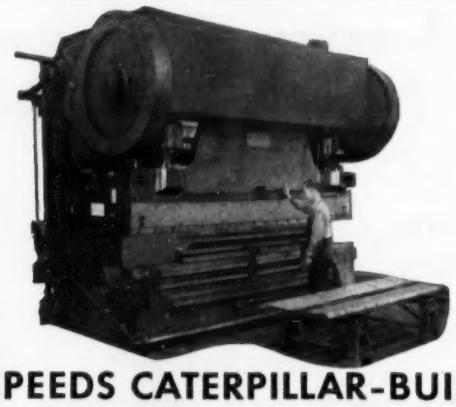
... with a Greenlee Hand Bender

Forming small-radius bends without flattening or kinks is simple, speedy work with a GREENLEE Hand Bender. Lets you "custom tailor" your pipe, tubing, and conduit installations right on the job. Especially designed to form neat bends for sharp corners, nooks and other close quarters. Various models and sizes. Write for free Bender Book.

GREENLEE

GREENLEE TOOL CO., 1942 HERBERT AVE., ROCKFORD, ILL.

For more details circle NED-822 B7 on enclosed inquiry slip



SPEEDS CATERPILLAR-BUILT TRACTOR EQUIPMENT

The ease and speed with which dies can be changed on Steelweld Presses and necessary adjustments made have proven a big asset in obtaining high production of a great variety of steel parts for scrapers, rippers, bulldozer blades and wagons at the Joliet Plant of Caterpillar Tractor Co.

STEELWELD BENDING PRESSES CATALOG No. 2010

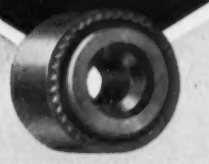
Send for free copy of catalog No. 2010.

THE CLEVELAND CRANE & ENGINEERING CO.
6655 E. 281st St., Wickliffe, O.

STEELWELD PRESSES

For more details circle NED-823 B7 on enclosed inquiry slip

faster • easier • lower cost
Template assembly



- Drop a PEM self-clinching drill bushing into each on-center hole and squeeze. *Template's finished.*
- No riveting—no welding—no indexing—no nesting—no outboard supports.
- Compression clinching locks bushings securely into template metal.
- True alignment—and center distances—automatically.
- High torque and pullout resistance.
- Pay for themselves in assembly savings.
- Permit thin gauge, light weight templates.

Write for literature, and samples for trial.

PEM

PENN ENGINEERING & MANUFACTURING CORP.
DOYLESTOWN • PENNSYLVANIA

For more details circle NED-824 B7 on enclosed inquiry slip

LOCKER RACK
serves 10 persons

All compartments of this locker rack are at a convenient height. Each door is equipped with a built-in key lock. Unit accommodates garments for 10 persons and is easily moved when necessary. Coat hanger and chain arrangement permits coats and jackets to be locked to the rack. The 18 x 50 x 76-in. unit is finished in baked-on gray enamel. Made by **Lyon Metal Products, Inc.,** 324 Clark St., Aurora, Ill.

For more details circle NED-825 B7 on enclosed inquiry slip

PLASTIC DRILL SLEEVES
eliminate most drill breakage

Tapered drill sleeves of Du Pont nylon are designed to eliminate most drill breakage by breaking themselves when the drill hits a hard spot or air hole and stops. Drill Savers are unaffected by electrolytic corrosion, coolants, oil, gasoline or grease and absorb heavy shock and vibration. Sizes 1-2, 2-3 and 3-4 are available. Made by **James Products Co.,** 803 Mentor Ave., Mentor, O.

For more details circle NED-826 B7 on enclosed inquiry slip

DUPLEX MICROFILM CAMERA
photographs both sides of document

Both sides of a document are photographed simultaneously at reduction ratio of 25:1, 35:1 or 42:1 by model 11 Film-a-Record duplex microfilm camera. Unit has 12-in. throat and doubles 16 mm film capacity by filming up one side and down the other, using the 8 mm principle. Full operating controls, warning buzzer and indicator lights assure error-free microfilming with no special operator training needed. Light intensity is adjusted by single Colorstat control. Film capacity is 250 ft of 16 mm film, which can be loaded in daylight. Automatic feeding equipment and document stacker are available for use with the camera. Made by **Sperry-Rand Corp.,** Remington Rand Div., Dept. NED, 315 Fourth Ave., New York 10, N. Y.

For more details circle NED-827 B7 on enclosed inquiry slip

NOW! Lubricate those hard-to-reach places

The **EASY** Way ...by **SPRAY**

Penetrates the tightest bearings

Cabot's new 10 oz. spray can of Lubri-Tasgon makes it easier than ever to loosen gummed-up sludge, relieve and prevent recurrence of sticky valves, provide lasting lubrication for all bearing surfaces. Has 25% greater lubricating power than ordinary oils, sprays freely even at 40° below zero. Lubri-Tasgon also comes in standard 3 oz. cans, pints, quarts and gallons.

10 oz. can only $1.50

Try it. We'll pay shipping costs

SAMUEL CABOT INC.
232 Oliver Building, Boston 9, Mass.

Please send _____ cans of Lubri-Tasgon Spray @ $1.50 each
I enclose check for $_____

For more details circle NED-828 B7 on enclosed inquiry slip

DEGREASER!
machinery shampoo

SPRAY OR BRUSH ON ...

Takes cling out of oil and grease ... emulsifies it ... so that all dirt may be hosed off. Launders engines, lathes, machinery, faster, more completely than steam cleaning. Self scouring action brings out factory new appearance ... provides accurate visual inspection. Where work will not withstand the use of water for rinsing, we can recommend suitable GUNK replacement. (GUNK is also an excellent paint brush cleaner.) Shipped in concentrated form ... 55 gal. drum makes 500 gals. heavy-duty Degreaser! Genuine GUNK is sold in bulk sizes at better industrial wholesalers everywhere!

IMMEDIATE DELIVERY
1 PINT OR A TANK CAR

CURRAN CORP.
Mfg. Chemists
LAWRENCE, MASS.

(CHICAGO PLANT) GUNK CHICAGO CO. • CHICAGO 38, ILL. • (LICENSEE)

For more details circle NED-829 B7 on enclosed inquiry slip

Your **PROFITS** are in the balance....

Choose **DETECTO** the scale with these **3** *Exclusives*

1. Exclusive all-steel construction and all-steel lever system assures longer, trouble-free scale life and less maintenance cost.

2. Unique outboard bearing design prevents platform tipping. This means that you get *completely* accurate weighing on any part of the scale.

3. DETECTO's tare and weigh beams extend the dial capacity 125%. This means that you get greater gross weighing with minimum dial graduations.

Fractional weighing errors may seem inconsequential, but they add up to a staggering annual loss. When materials mean money, you are wise to depend on DETECTO, the most dependable name in precision industrial scales for more than half a century. DETECTO makes scales for every industrial need, ranging from 1/100 oz. to 50 tons. Models for packaging, parcel post, printing, counting, over-under attachment, portable beam, etc. Write for free, no-obligation catalog.

SALES and SERVICE in all principal cities

Detecto Scales, Inc.
528 Park Avenue, Brooklyn 5, N. Y. Since 1900

Gentlemen:
Please send me catalog #651 describing DETECTO precision industrial scales. This, of course, obligates me in no way.

Name.....
COMPANY.....
City.....Zone.....State.....

For more details circle NED-830 B7 on enclosed inquiry slip

How to cut costs on your special threaded fasteners

The special steel collar screw above was originally cut from bar stock. This meant numerous machining operations and considerable scrap.

Cleveland now cold forms this screw at 20% less cost to the customer, while holding the specified .005 in. tolerance.

A big advantage of cold forming is material savings. Almost all the metal in the working slug is present in the finished part. Furthermore, cold forming improves physical properties, often permitting use of a less expensive, lower carbon steel – or a smaller part.

Send us your specifications or write for a copy of our folder "Specials by Specialists."

THE CLEVELAND CAP SCREW COMPANY
4444-18 Lee Road, Cleveland 28, Ohio
Warehouses: Chicago • Philadelphia • New York • Providence • Los Angeles
For more details circle NED-831 B7 on enclosed inquiry slip

ROBINTRONIC
AUTOMATIC LEVEL INDICATOR FOR BULK MATERIALS HANDLING

Single Unit
One probe and complete self-contained electronic control unit.

Dual Unit
Two independently operating probes and single control unit.

This accurate, easily installed electronic unit actuates an audible or visible signal to warn operators when materials vary from the pre-set level. When equipped with a power relay, it can also control the flow of materials by stopping and starting motors and other equipment.

RoBINtronic requires neither adjustment nor lubrication. It is engineered for heavy industrial service and functions with materials of all densities from rock and coal to grain and sand.

Send for free Bulletin 166, Department R, Hewitt-Robins, Stamford, Connecticut.

HEWITT-ROBINS

For more details circle NED-832 B7 on enclosed inquiry slip

dependable

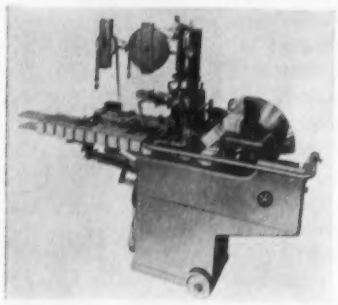
ANCHOR CONVEYOR TURNS

ANCHOR Traction Wheel Turns are designed with a square frame for strong installation, and mounting holes in line with rail for easy alignment. Traction Wheel Turns can be furnished with bronze or graphalloy bushings; tapered roller or "Lubricated-for-Life" bearings. ANCHOR also supplies Roller Turns and other conveyor components, or completely installed conveyor systems.

ANCHOR STEEL & CONVEYOR CO.
6906 KINGSLEY AVE. DEARBORN, MICHIGAN

For more details circle NED-833 B7 on enclosed inquiry slip

BUNDLING MACHINE
handles cartons, labels, papers



By simply changing dial settings, this German-made bundling machine can handle cartons, books, envelopes, labels or papers. Machine encircles bundle with strip of plain paper and seals the two ends with gummed tape. Operation, except feeding, is automatic, and bundles remain in machine under pressure for sufficient time before being ejected. Machine operates only when bundle is correctly positioned. Bundles from 2¾ to 11 in. long, 1⅜ to 6¾ in. wide and 2 to 3½ in. high can be handled at rate of up to 25 per minute. Wheels give machine mobility. Sold through **Potdevin International Ltd.**, 285 North St., Teterboro, N. J.

For more details circle NED-834 B7 on enclosed inquiry slip

POWER SHOVEL
features two-lever controls and convertibility to various uses

Air controlled 1¼-cu yd Lorain 56 power shovel is convertible to shovel, crane, clamshell, dragline or hoe service. It incorporates two-lever Metered-Air controls for all turntable operations; Air-Ease power crawler controls; Shear-Ball mounting which eliminates center pin and nut, centering gudgeon and turntable rollers; detachable counterweight; and lightweight welded crane boom. The 14-ft long crawlers are 11 ft 4 in. or 13 ft wide.

Standard tread width is 30 in., with 42 in. optional. Shovel boom of 21 ft has 17-ft stick, air dipper trip and air crowd and retract. Hoe boom is 23 ft long, stick is 7 ft and dipper widths are from 36 to 48 in. Power is supplied by a Cummins diesel engine with torque converter and a disconnecting two-plate clutch. Made by **Thew Shovel Co.**, Dept. NED, Lorain, O.

For more details circle NED-835 B7 on enclosed inquiry slip

Shell & Tube Heat Exchangers

Young Radiator Co.—Design, capacity and dimension data are provided in 16-page catalog 1156 on type R and RW removable tube bundle heat exchangers. Data will enable selection and specification of exchangers for hydraulic equipment, diesel engines, gas engines, compressors, transformers, machine tools, cutting fluids and similar applications.

For more details circle NED-836 B7 on enclosed inquiry slip

WHICH WHEEL...
Helps YOU most?

Each of these Multi-Use "Brightboys" Gives a Completely New Slant on Abrasive Applications

Their unique working action of *abrasive and rubber* will BURR, FINISH, CLEAN, POLISH IN ONE OPERATION, save as much as 50% in time, perform types of work never before associated with abrasives.

Silicon Carbide and Aluminum Oxide Grains, each in grains from extra fine to extra coarse, in soft, firm and tough rubber binders.

Ask your dealer for recommendations and for the Brightboy Catalog. Write us if he cannot supply you or on any problem in which finishing is involved.

WELDON ROBERTS Brightboy RUBBER CUSHIONED ABRASIVES

BRIGHTBOY INDUSTRIAL DIVISION
WELDON ROBERTS RUBBER CO.
95 North 13th Street, Newark 7, N.J.
America's Pioneer Manufacturer of Rubber-Bonded Abrasives

For more details circle NED-837 B7 on enclosed inquiry slip

Save lubrication time and money with

This sturdy lever gun develops up to 10,000 pounds of pressure. Handles all regular pressure gun greases. Long operating handle for maximum leverage. Loader fitting for fast, clean filling (or gun may be filled by suction). Heavy steel linkage maintains piston alignment. Follower rod disappears after filling. Capacity, one lb., outlet ⅛" p.t. Spring or ram-primed.

An Alemite grease gun for every lubrication need!
- Models for light, medium and heavy greases.
- Long-wearing lever gun hoses for hydraulic, pin-type or button head fittings.
- Sizes and capacities for every lubrication job.

Write for free catalogs and complete information, to:
Alemite, Dept. L-27
1850 Diversey Parkway, Chicago 14, Illinois

A PRODUCT OF SW STEWART-WARNER

ALEMITE
Products of STEWART-WARNER CORPORATION

For more details circle NED-838 B7 on enclosed inquiry slip

LOW COST HUMIDIFICATION

Controls dry, thirsty air

WITH Bahnson UNIT HUMIDIFIERS

- Costs as low as $10 per unit yearly to operate
- Self-contained equipment
- Automatic controls
- No floor space required
- Water or steam units
- Fully guaranteed

The most complete line of Unit Humidifiers for industrial needs made by the *world's largest maker of industrial humidification equipment.*

FREE BULLETIN
Write for Catalog N-5 for information on complete line and ask for specific recommendations. Clip ad to letterhead and mail.

Bahnson COMPANY WINSTON-SALEM, N. C.

For more details circle NED-839 B7 on enclosed inquiry slip

1ST IN METAL TOOL BOXES
CASES—CHESTS—CABINETS

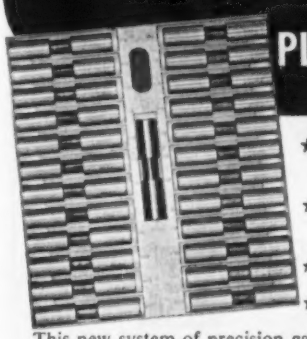
Here are the world's finest metal boxes. They're better constructed—better looking. Known for their fine materials—workmanship—attractive design. These boxes outlook—outlast—outsell competition.

Write for FREE book, including complete information.

Waterloo
VALVE SPRING COMPRESSOR CO.
WATERLOO, IOWA

For more details circle NED-840 B7 on enclosed inquiry slip

CLOSER TOLERANCES with DELTRONIC TENTH PLUG GAUGES



★ Size variation by ten thousandths

★ Available in increments of 1/64" from 1/8" to 1"

★ Also 1/16" & 3/32" sets

★ Hardness is Rockwell C62/C64

This new system of precision gauging provides one gauge of nominal size plus 12 gauges of increasingly larger sizes in .0001" increments and 12 gauges of decreasingly smaller sizes in increments of .0001". Each gauge is identified. It is the same size on both ends to double the life in usage.

For further information write Dept. D-NE

DELTRONIC CORPORATION
1507 RIVERSIDE DRIVE • LOS ANGELES 31, CALIF.

▲ For more details circle NED-841 B7 on enclosed inquiry slip ▲

New, Triner Automatic PARCEL POST SCALE

The TRINER *Imperial*

70 lb. capacity

Speed Mail Room Operations

NEW EXTRA LARGE, EYE-LEVEL, COLOR BAND CHART

FAST, ACCURATE READINGS THAT STOP COSTLY POSTAGE ERROR

Vertical color bands guide the eye for virtually instantaneous postage computation. The numbers are large, easy to read and the positive quick stopping knife indicator eliminates the possibility of error from "angle" readings. Famed Triner twin pendulum gravity system . . . no springs . . . assures money-saving accuracy. And there's new beauty, new construction features. Get the facts.

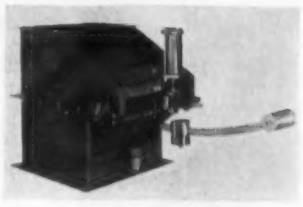
Write for Booklet

Over 200,000 TRINER SCALES are used by the U.S. POST OFFICE. Triner is also the scale most used by leading mail order houses. There's a Triner scale for every mailing requirement.

TRINER SCALE & MFG. CO.
2716 W. 21st Street • Chicago 8, Illinois

▲ For more details circle NED-842 B7 on enclosed inquiry slip ▲

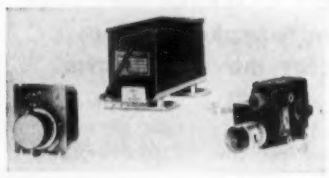
SELF-POWERED FEEDER controls dry material flow



Principle of balanced weights operates series A-619 self-powered feeder used to control the feed of dry, free-flowing materials at rates from 200 to 2000 lb per minute. Fall of the material being fed onto an impact pan furnishes power to position feed control gate. Units are available to control feeds down to 5 lb per minute over 10-to-1 operating range. They are also offered with automatic shutoff to start or stop feeder, or synchronize it with other plant equipment. Units adapt easily to semiportable use. Made by **Wallace & Tiernan Inc.**, 27 Main St., Belleville 9, N. J.

▲ For more details circle NED-843 B7 on enclosed inquiry slip ▲

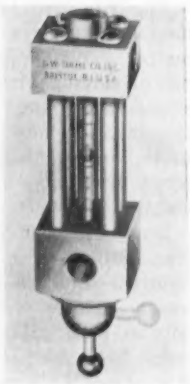
REMOTE POSITIONING SYSTEM for throttling or valve control



A transmitter, amplifier and receiver comprise this remote positioning system for transmitting motion with appropriate output power. It can transmit or receive any form of motion, either linear or rotary. Amplifier requires 115 v, 400 cps supply, but receiver motor can operate on practically any power supply available. Input-output ratio can be 1:1 or any other desired ratio. Accuracy is independent of load. System can be used as fuel mixture and throttle control on engine test cells, to operate process valves or to manipulate remotely in hazardous locations. Made by **Bristol Co.**, 30 Bristol Rd., Waterbury 20, Conn.

▲ For more details circle NED-844 B7 on enclosed inquiry slip ▲

SIGHT FLOW INDICATOR shows small leakage flows



A combination header and Demi toggle valve for tight shut-off comprises this sight flow indicator for indicating leakage flows, or any small flow requiring constant checking. Since valve toggles shut in one plane, open or closed position is positively indicated by colored ball. Variation of design is used on purge systems with a tiny 200:1 rangeability needle valve being used for throttling. Available flow range is 0 to 2 scfh. Made by **George W. Dahl Co.**, 432 High St., Bristol, R. I.

▲ For more details circle NED-845 B7 on enclosed inquiry slip ▲

DINGS PRESENTS . . . THE All New "easy-clean" MAGNETIC FLOORSWEEPER

Here's the *only* magnetic floorsweeper designed for *easy cleaning!* It's a brand new Dings model that automatically sweeps the floor clean of chips, turnings, nails and other dangerous metal . . . discharges accumulated iron *in a second.* You save time, possible personnel injuries, and increase your scrap sales profits with this all-new Perma-Plate Floorsweeper.

Here's why it's "easy-clean"

No more stooping or wrestling with canvas covers! Just step on the stainless steel stripper plate and swing the handle. Iron drops right off.

S156-1/9

Dings

Write for Bulletin 1210-A-4

DINGS MAGNETIC SEPARATOR CO.
4758 W. ELECTRIC AVE.
MILWAUKEE 46, WISCONSIN

▲ For more details circle NED-846 B7 on enclosed inquiry slip ▲

Direct Temperature Reading

On ANY SURFACE or in ANY MATERIAL

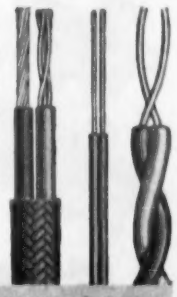
The Xactemp Hand Pyrometer is the answer to quick, accurate temperature determination in countless processes and operations. And, it's so convenient to use.

Model LT-840 Xactemp Hand Pyrometer can be used with surface, ribbon, needle, and handle thermocouples and with rigid and flexible extension arms. All are quickly interchangeable—without adjustments. Recommended for field service, laboratory, and production-line use.

Ask for Bulletin XT351

8648

"SERV-RITE" THERMOCOUPLE WIRE and EXTENSION WIRE



Most standard wires and insulations are carried in stock for quick delivery. Other insulations, in long or short runs, are manufactured to specifications.

Serv-Rite wire is insulated in Gordon's own wire plant under rigid controls to assure consistent, uniform high quality.

Bulletin 1200 gives general application data, description of the wires, and ordering information. Ask for a copy.

CLAUD S. GORDON CO.
Manufacturers—Engineers—Distributors
621 West 30th Street, Chicago 16, Ill.
2013 Hamilton Ave., Cleveland 14, Ohio

▲ For more details circle NED-847 B7 on enclosed inquiry slip ▲

Specially Designed COLSON HANDLING EQUIPMENT

Famous Lift-Jack System

Step up the flow of goods and cut manpower costs with Colson's quality-constructed Lift-Jack System. Actual field tests prove it pays for itself in six months through savings in receiving, shipping and production. Precision engineered for easy steering . . . built for years of long, rugged use. Available in both wood and steel platform skids.

UNIVERSAL DRUM TRUCK
Fastest, safest, most efficient handling of drums and barrels. Locks firmly on any size container. Lifts easily . . . carries with perfect balance.

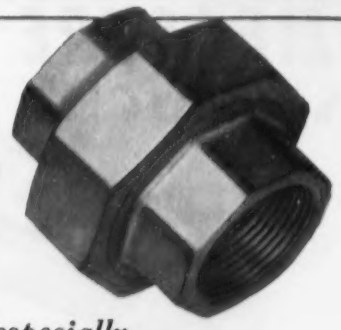
RUGGED STEEL PLATFORM TRUCK
Reinforced underside for extra heavy loads. Heavy duty casters and rigidly bolted handles add years of extra life.

Colson

The Colson Corporation
General Offices, Elyria, Ohio
Factories in Elyria, Boston and Toronto

▲ For more details circle NED-848 B7 on enclosed inquiry slip ▲

The ROCKWOOD DUALSTEEL UNION *was made especially to handle highly corrosive material*



Rockwood's Dualsteel Unions stand up to wrench abuse and overcome galling. The reason — Dualsteel's greater Brinell hardness.

Rockwood Dualsteel Unions are made of a new special alloy steel. This special alloy steel cannot be welded, it's tougher, more resistant to corrosion — and you get greater strength without bulk!

The entire union is completely "Rockwoodized", the threads being protected by "Rockwoodizing" after having been machined. This process plus the special alloy makes the Dualsteel Union ideal for the handling of corrosive material. For complete facts write Rockwood Sprinkler Company, 1509 Harlow Street, Worcester 5, Mass.

ROCKWOOD

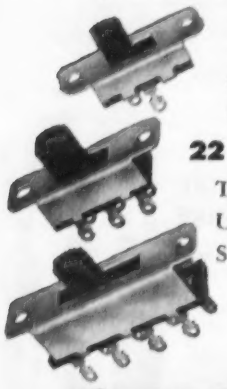
ROCKWOOD SPRINKLER COMPANY

▲ For more details circle NED-849 B7 on enclosed inquiry slip ▲

LOW COST SWITCHES

FOR ALMOST ANY ELECTRICAL PRODUCT

Low-priced Stackpole slide switches provide practically any needed switching arrangement for appliances, instruments, radios, TV sets, small motors and electrical toys. They're sturdy, fully dependable, small in size.



22 STANDARD TYPES

Types from .5 to 3 amperes A.C. Underwriters approved. Write for Slide Switch Bulletin RC-9B to:

Electronic Components Division
STACKPOLE CARBON CO.
St. Marys, Pa.

STACKPOLE

Fixed and Variable Resistors • Iron Cores • Ceramag® ferromagnetic Cores • Molded Coil Forms • "GA" low-value Capacitors

For more details circle NED-851 B7 on enclosed inquiry slip

It's OK Boys

I use the Modern Safety Drill Table for all sorts of jobs. No more bother with clamps, V-blocks, parallels. Instead of spending 20 minutes to make a tough set-up, I just drop in the work and am ready to drill in a couple minutes. I save a lot of time. In fact, the company guarantees that this combination drill table and vise will save its cost on labor alone in six months in your shop.

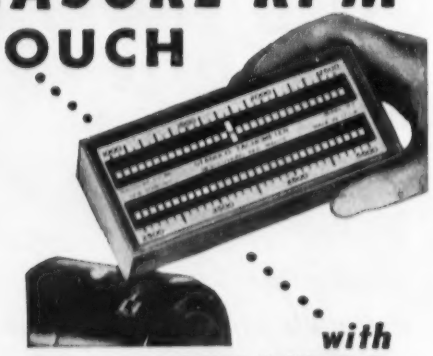
FREE TRIAL OFFER

Try it for 30 days at our expense. Write for illustrated literature and full details.

MODERN MACHINE TOOL CO.
2005 LOSEY AVENUE
Jackson, Michigan

For more details circle NED-852 B7 on enclosed inquiry slip

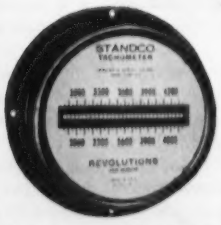
MEASURE RPM by TOUCH



with

STANDCO VIBRATING REED TACHOMETERS

PORTABLE AND STATIONARY TYPES



- SIMPLE
- EFFECTIVE
- DURABLE
- SAFE
- IMPOSE NO LOAD
- EASY TO USE
- EASY TO INSTALL

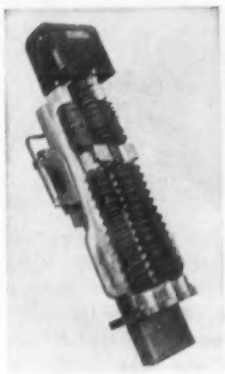
Various models. Ranges as low as 600 RPM, as high as 100,000 RPM.

Bulletin No. 770

HERMAN H. STICHT CO., INC. 27 PARK PLACE, NEW YORK 7, N. Y.

For more details circle NED-853 B7 on enclosed inquiry slip

BUFFING COMPOUND APPLICATOR installs on all buffing machines

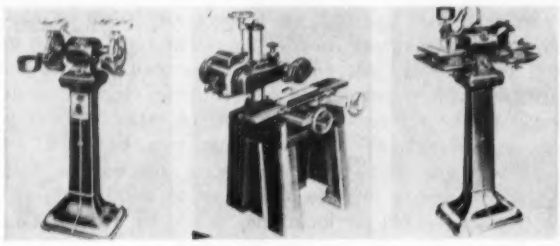


Application of 10 in. of buffing compound without resetting or adjustment is possible with model 1006 air-operated buffing compound applicator. It can be installed in any position on all types of buffing machines from simple lathes to multioperation automatics. It feeds any number of strokes per minute, applying compound only when required. Up to eight applicators can be operated simultaneously from a single controlling valve. Rate of feed is adjustable from 0.0015 to 0.015-in. per stroke. Operating parts are covered to seal out dirt, wheel lint and compound. Made by **George L. Nankervis Co.**, Fullerton at Whitcomb, Detroit 27, Mich.

For more details circle NED-854 B7 on enclosed inquiry slip

GRINDERS & DUST COLLECTOR 6 and 7-in. units make up line; 1/3-hp collector moves 350 cfm

A 6-in. bench grinder, 6-in. carbide tool grinder, 7-in. tool grinder, a large capacity surface grinder and a dust collector make up the Light-heavyweight



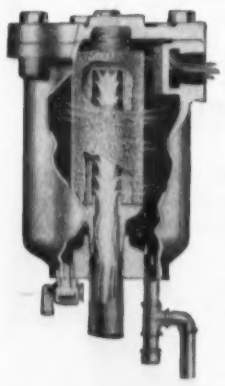
line of precision machines. On 6-in. carbide tool grinder, tables tilt 30 degrees in and 45 degrees out for wet or dry grinding at any angle. Wheel rotation is instantly reversible for grinding on downward motion of wheel.

The 7-in. grinder offers special motor with extra-long shafts for ample clearance between wheel and motor. Oval-shaped end bells make possible full use of side of wheel. Large surface grinder, in both single-phase and three-phase models, can also do chip-breaker and tool and cutter grinding. This unit has 360-degree swivel column, vertical feed screw with no backlash and other cross slide and longitudinal slide features.

Dust collector has ⅓-hp motor that moves 350 cfm. Motor is in separate, dustproof compartment. Squirrel-cage fan develops static suction of 3 in. of water. Large particles sucked up by fan fall into bottom pan. Fireproof filter is accessible through large back door. Machines introduced by **Rockwell Mfg. Co.**, Walker-Turner Div., Dept. NED, 400 N. Lexington Ave., Pittsburgh 8, Pa.

For more details circle NED-855 B7 on enclosed inquiry slip

ADAMS PORO-STONE AIR FILTER, designed to remove oil, water and foreign matter from compressed air lines with minimum pressure drop.



The R. P. Adams Poro-Stone air filter is engineered to efficiently remove entrained oil, water and pipe scale from compressed air lines. Liquid droplets and solids being carried by the gas stream are first removed by centrifugal action in an annular chamber. Secondary filtration is achieved by passing the air or gas stream through a poro-stone unit. An automatic trap can be provided to discharge the residue from the cyclone chamber.

At rated capacity the filters operate at a maximum pressure drop of only ½ lb., thus insuring delivery of line pressure to the point of consumption.

The units require virtually no service or maintenance—thereby insuring continued trouble-free, low cost performance.

ADAMS Poro-Stone air filters are available from stock in sizes to suit your needs. For further information, write today for Bulletin 117, R. P. Adams Co., Inc., 227 East Park Drive, Buffalo 17, New York. *(Advt.)*

For more details circle NED-856 B7 on enclosed inquiry slip

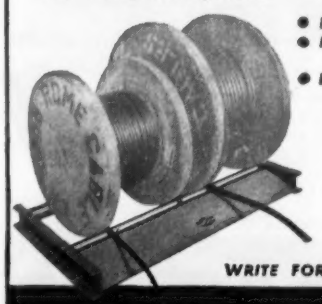
SAVE TIME AND MONEY HANDLING CABLE REELS

Easy, simple, fast! Minimum loading and unreeling effort. Modernly efficient.

Style A 2,000 lbs. cap. for reels up to 28 in. wide. 37.50 f. o. b. Cincinnati.

FOR WIRE, CABLE, ROPE

- Heavy gauge steel frame
- Slanted front
- Ball bearing adjustable rollers
- No jacks
- Handles any reel diameters
- Positive roller lock for unloading



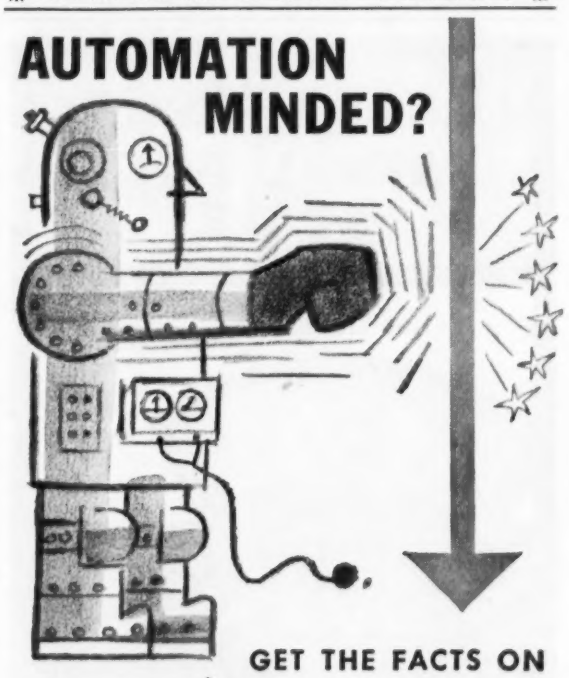
Style B 4,000 lbs. cap. for 2 reels up to 24 in. wide each or 1 reel up to 48 in. wide. 75.00 f.o.b. Cincinnati.

WRITE FOR DETAILS TODAY

ROLL•A•REEL 1100 Sycamore at Central Parkway Cincinnati 2, Ohio

For more details circle NED-857 B7 on enclosed inquiry slip

AUTOMATION MINDED?



GET THE FACTS ON

ELECTRO PUNCH Jr.

- A compact electric impact hammer for fixed single-purpose applications.
- Can be mounted in any position.
- Accurately controlled impacts to 3500 lbs.
- Lightning fast strokes up to 120 a minute.
- Major manufacturers use it to STAKE — RIVET — MARK — SHEAR — CRIMP — PUNCH — CUT-OFF.

Write for free folder showing complete line of Black & Webster solenoid-operated production tools.

BLACK & WEBSTER, INC.
Dept. 1, 445 Watertown Street, Newton 58, Mass.
SOLENOID-OPERATED PRODUCTION TOOLS

For more details circle NED-858 B7 on enclosed inquiry slip

You can eliminate problems of WORKPIECE INTERFERENCE with PINES 2-in-1 BENDER

Pivoting Head Design Permits L.H. and R.H. Operation

● This new, small, compact Pines Bender for production, experimental, or small lot bending work is actually two machines in one. It's designed with a pivoting head and top assembly and double ways which permit fast, efficient handling of bending operations in either clockwise or counter-clockwise direction. Changeovers can be made in two minutes. You save time and reduce work handling where multiple planes and odd workpiece shapes cause interference on ordinary machines. These exclusive features permit double tooling setups, fast, accurate bending results. Typical production rates average 300-400 bends per hour, and the machine is powered to handle work up to 1" O.D., 16-gauge (.062") steel tubes, 5/8" bar stock, or equivalent in continuous production.

Write for FREE DATA

Get complete data today on this new highly versatile Pines Bender.

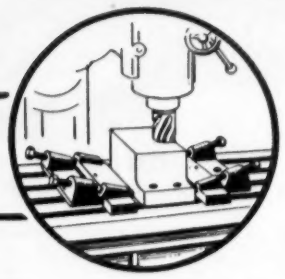
PINES ENGINEERING CO., INC.
Specialists in Tube Fabricating Machinery 440 WALNUT • AURORA, ILLINOIS
PRODUCTION BENDING • DEBURRING • CHAMFERING MACHINERY

▲ For more details circle NED-859 B7 on enclosed inquiry slip ▲

QUICK SURE GRIP

FOR ANY WORK

ON ANY MACHINE TABLE



HART DIVIDED MACHINE VISE JAWS

Write for circular

WALTER W. FIELD & SON, INC.
39-51 HAYWARD STREET, CAMBRIDGE 42, MASS.

▲ For more details circle NED-860 B7 on enclosed inquiry slip ▲

SAVE TIME, WEIGHT, HANDLING with TINNERMAN Speed Clamps®

HOSE CLAMP—One-piece, low-profile, spring steel. Ideal for low-pressure air, vent or drain lines. Easily applied to pre-latched position by hand, securely tightened with a pair of pliers. Ratchet-tooth locking mechanism is part of Clamp! Easily removed. For 15/32" O. D. hose, up.

ELECTRICAL HARNESS CLAMP Has a safe, interlocking tongue and slot that can't spring open accidentally, yet opens easily for servicing. No tools required. Can be pre-assembled to wire bundles before fastening to structure. For 1/8"-diameter bundle, up.

TUBE CLAMP—Simplifies attachment of tubing. With or without self-retaining SPEED NUTS that cut assembly time. With or without neoprene flame-resistant cushion. For 1/16" O.D. tubing, up.

Write for free descriptive literature!

TINNERMAN PRODUCTS, INC.
BOX 6688, DEPT. 12, CLEVELAND 1, OHIO

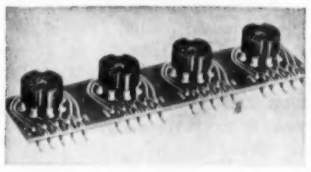
▲ For more details circle NED-861 B7 on enclosed inquiry slip ▲

WIPING TOWEL DISPENSER
returned towels actuate delivery

Placed in convenient locations in the plant, the Texel Service Y-Ping Towel Dispenser provides towels specifically made for shop use. Soiled towels dropped into the machine in amounts equivalent to the number in each clean bundle strike a lever which trips a counter. When required number of counts are made (5 or 10 as desired), the machine automatically delivers a bundle of clean towels. Dispenser is leased through the **Industrial Wiping Cloth Co.**, 29-30 41st Ave., Long Island City 1, N. Y.

▲ For more details circle NED-862 B7 on enclosed inquiry slip ▲

SOCKET MOUNTS
right angle printed circuit type

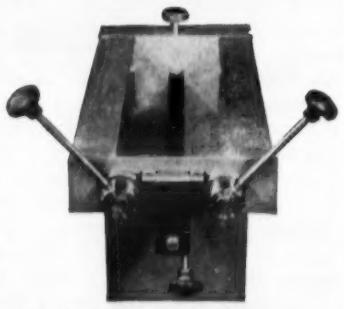


Multiple right angle tube socket mounts for use with printed circuits can also be applied for the mounting of other electronic components such as resistors and capacitors. Mounting can incorporate two, three, four or more sockets of the same or different sizes, and can be made to specification. Rigid units can have printed circuitry on either one or both sides of the laminated base. Made by **Cleveland Metal Specialties Co.**, Dept. S, 1783 E. 21st St., Cleveland 14, O.

▲ For more details circle NED-863 B7 on enclosed inquiry slip ▲

LONGITUDINAL SEAM JOINER
used on cylinders and flat sheets

Series B longitudinal seam joiner facilitates manual or automatic welding of seams on various cylinders and flat sheets. Machine can be used on short run or production work. Clamping action on the seam is performed manually and can be operated independently. Floor and bench models are built in 18, 24 and 30-in. lengths. All will handle work from 3 to 30 in. diameter. Made by **Webb Corp.**, Reed Equipment Div., Dept. NED, Webb City, Mo.



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Are You Buying RUBBER at the RIGHT price?

Our Custom Molded Rubber Plant can supply you promptly with a wide choice of slab, pure and C. I. sheet, press die pads, cylinder-spring and specification rubber that's priced right. You buy from a price list that you can immediately understand. No tricky discounts! No gimmicks! Plus that . . . each of your orders is important to us and we are *flexible* enough to do a favor for a customer when you need it.

WRITE US for our big E-Z to read price list. Contains other items, too! RUBBER JOBBERS INVITED.

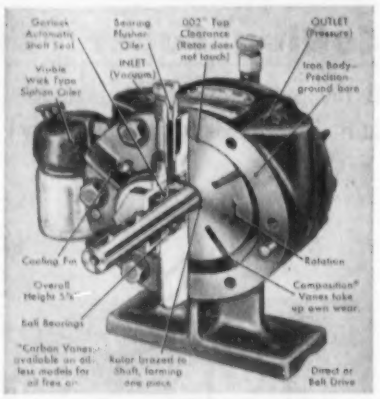
BUFFALO WEAVING & BELTING COMPANY
210 CHANDLER ST.
BUFFALO 7, N. Y.

▲ For more details circle NED-865 B7 on enclosed inquiry slip ▲

INTEGRAL-MOTOR PUMPS 1/12 to 1/3 h.p. to 4 cfm.

LIGHT-DUTY PUMPS V-belt, direct drive.

HEAVY-DUTY PUMPS To 21 cfm, 28" vac. or 30 psi.



Quality and simplicity keep efficiency high on

GAST ROTARY AIR PUMPS

This cutaway reveals why Gast Air Pumps are in demand for plant use and original equipment. Manufactured to high quality-precision standards, all models embody this efficient, simple rotary-vane design. Rotor is balanced; sliding vanes light in weight for minimum motion-energy-friction loss compared to other pumps. As vanes take up their own wear automatically, pump delivers full performance for years.

Write for "Application Ideas" booklet and catalog—mention capacity you need! Gast Manufacturing Corp. P. O. Box 117-R, Benton Harbor, Michigan.

Original Equipment Manufacturers for Over 25 Years

GAST ROTARY
• AIR MOTORS TO 4 H.P.
• COMPRESSORS TO 30 P.S.I.
• VACUUM PUMPS TO 28 IN.
See Our Catalog in Sweet's Product Design File

▲ For more details circle NED-866 B7 on enclosed inquiry slip ▲

DPS has the technical know-how to "engineer" more speed and profit into your assembling operations.

● The signal success of DPS trained engineers in adapting power equipment to the individual feeding and assembling needs of industrial plants everywhere is assurance that they can likewise solve your special problems. In our broad line of

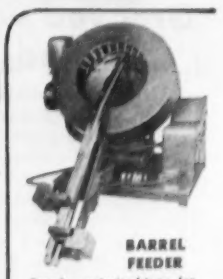
SELECTIVE PARTS FEEDERS
POWER SCREWDRIVERS
SPECIAL ASSEMBLING MACHINES

equipment can be selected, and custom features incorporated, to fit your requirements. Plan now to use DPS modern assembling methods. Tell us your set-up. Write for catalog and further details.

POWER SCREW-DRIVERS
An extensive, versatile line in both bench and pedestal type.

BOWL FEEDER
Electrical vibratory type to feed parts that cannot be tumbled.

BARREL FEEDER
with stationary ring cover for heavy-duty production.



BARREL FEEDER
Popular motorized type, for parts requiring critical selection.

DETROIT POWER SCREWDRIVER CO.
2819 W. FORT STREET • DETROIT 16, MICHIGAN

▲ For more details circle NED-867 B7 on enclosed inquiry slip ▲

Coffing Super Power

is the most efficient, lightest, safest hoist in its capacity class available today!

It's an exclusive Coffing-designed hoist using patented compound levers instead of bulky, heavy gears. It's more efficient (85%), more compact, with the greatest power-to-weight ratio and the highest safety factor of any ratchet lever hoist yet invented. Available in 6 models from 1½ to 5 ton capacities.

"Safety valve handle" bends at point of maximum safe overload—may be adjusted for length and operated from either side of the hoist—can't spin out of control. Ask your distributor or write for bulletin ADH51, Coffing Hoist Div., Duff-Norton Co., 803 Walter St., Danville, Ill.

COFFING HOIST

Division of DUFF-NORTON COMPANY

For more details circle NED-868 B7 on enclosed inquiry slip

Of increasing interest

TO COMMUNICATIONS ENGINEERS

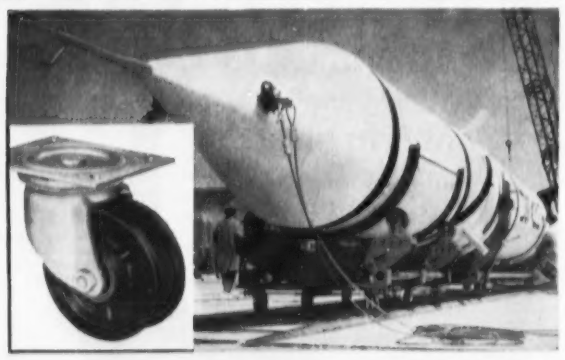
WHEELER
SOUND POWERED
Electric
TELEPHONES

If you are working with communications systems, you will want to know about Wheeler's completely perfected and highly efficient Sound Powered equipment . . . broadly adaptable to many special fields and uses. No batteries! No outside power! No deterioration or maintenance. Write for literature. Outline your special needs, whether for systems or components.

HANDSETS
•
PAIR PHONES
•
DESK SETS
•
SYSTEMS

the **WHEELER INSULATED WIRE COMPANY, INC.**
Division of Sperry Rand Corporation, 1108 East Aurora St., Waterbury 20, Conn.
In Canada: Sperry Gyroscope, Ottawa Ltd., Ottawa
6WH55A

For more details circle NED-869 B7 on enclosed inquiry slip



Grooved wheel casters guide Redstone missile

Bassick grooved wheel casters on a special stand control handling of the Army's prototype Redstone missile.

On inverted angle iron tracks they roll smoothly, provide absolute control. Additional grooved wheel casters on top of the stand help rotate the long range missile to make instrument ports accessible. There are Bassick grooved wheel casters for every application. Write for details. THE BASSICK COMPANY, Bridgeport 2, Conn. *In Canada:* Belleville, Ont. 7.10

Bassick
A DIVISION OF STEWART SW WARNER
MAKING MORE KINDS OF CASTERS . . . MAKING CASTERS DO MORE

For more details circle NED-870 B7 on enclosed inquiry slip

ELECTRONIC GAGE
measures to millionths of an inch

Ability to gage accurately within millionths of an inch is placed within the reach of the small shop with the introduction of the model IA-515 Indi-Ac electronic indicator. Gage has three coded meter scales for measuring dimensional variations from 10 millionths to 10 thousandths of an inch. Readings coincide on all scales without separate adjustments. Wide range centering control permits shifting of the zero electrically to facilitate setup. Gage includes adjustable gage head, amplifier and stand. Changes in gage tip position are electronically magnified up to 10,000 times. Gaging pressure is about ¾-oz. Made by **Cleveland Instrument Co.**, 735-A Carnegie Ave., Cleveland 15, O.

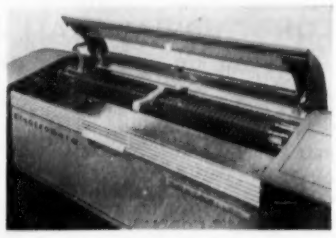
For more details circle NED-871 B7 on enclosed inquiry slip

INDUSTRIAL DOOR HARDWARE
prevents sagging of flexible doors

Installations of Rubbair flexible swinging rubber industrial doors (*NED, July* '56, p. 65) of 60 sq ft or over, or where openings are 7 ft or more wide, can be prevented from sagging by use of special hardware. Built-in support brackets prevent sagging of the casing and are not visible. They are supplied at the time the doors are fabricated to specifications. Made by **Stic-Klip Mfg. Co.**, Rubbair Door Div., Dept. NED, 500 Regent St., Cambridge 40, Mass.

For more details circle NED-872 B7 on enclosed inquiry slip

ELECTRONIC FILING UNIT
magnetic tapes store information



Short lengths of magnetic tape in the Datafile electronic filing device provide compact storage and rapid access to an almost unlimited volume of business information. Used in conjunction with a Datatron electronic computer, each Datafile stores 20 million characters in a single memory unit. Up to 10 units can be integrated into one computer system. Fifty 250-ft tapes in each unit magnetically store the records which are calibrated into addressible blocks of 200 characters each. Tape capacity is doubled through the use of two parallel lanes of six information channels each, interlaced across the tape width. Made by **Burroughs Corp.**, ElectroData Div., 460 Sierra Madre Villa, Pasadena 2, Calif.

For more details circle NED-873 B7 on enclosed inquiry slip

IMPROVE YOUR MATERIALS HANDLING TECHNIQUE WITH

Spaulding FIBRE RECEPTACLES

SMOOTH, CAN'T SPLINTER RUST OR CORRODE

Let the lightness, durability, resistance to oils, greases, moisture, impact and abrasion of Spaulding Vulcanized Fibre Receptacles help solve your materials handling problems.

SEND FOR FREE CATALOG

SPAULDING FIBRE COMPANY, INC.
Dover, N. H.

Please send me your free catalog of Spaulding Vulcanized Fibre Receptacles for materials handling and storage.

Name
Firm
Address
City Zone State

For more details circle NED-874 B7 on enclosed inquiry slip

Presenting **Automatic's** ALL NEW

Transporter

STACKER MODEL
Completely Redesigned

Shortest truck of its type, this all new TRANSPORTER Stacker offers a positive gain in handling ease, yet no compromise or sacrifice at any point to gain extra compactness. The entire truck has been completely redesigned throughout to improve stability... simplify operation...reduce down time...cut costs. Two of its exclusive new features are shown below but there are many more.

ALL NEW
Simplified fully enclosed all-gear drive

ALL NEW
Simplified handle-actuated adjustable brake

Automatic
WORLD'S LARGEST EXCLUSIVE BUILDER OF ELECTRIC-DRIVEN INDUSTRIAL TRUCKS

Write Today For Complete Specifications

61 W. 87TH STREET, DEPT. B-7, CHICAGO 20, ILLINOIS

For more details circle NED-875 B7 on enclosed inquiry slip

Quickdraft... the world's most efficient power exhauster

N-400-QD

...for industry

★ NO MOTORS, FANS OR BEARINGS IN EXHAUST LINE
★ NEEDS NO STACK
★ ACID RESISTING VITREOUS ENAMEL FINISH

Quickdraft improves industrial exhausting and cuts maintenance costs. Its blower operates in clean or outside air . . . eliminating down-time for cleaning and replacing fan blades. Quickdraft excels in venting paint booths . . . lightweight and abrasive waste . . . cellophane cuttings . . . chemical fumes . . . corrosive gases . . . noxious fumes . . . high temperatures . . . moisture and smoke. For heating units, it maintains constant draft required for efficient and economical combustion of all fuels. *Send for engineering data . . . today.*

Quickdraft COMPANY
P. O. Box 87-L, Dueber-Hampden Bldg., Canton, O.

Capacities of 56 standard and heavy duty models from 6 to 30 inches diameter . . . 8,400 CFH to 1,005,960 CFH. Greater capacities on request.

For more details circle NED-876 B7 on enclosed inquiry slip

The instrument man's

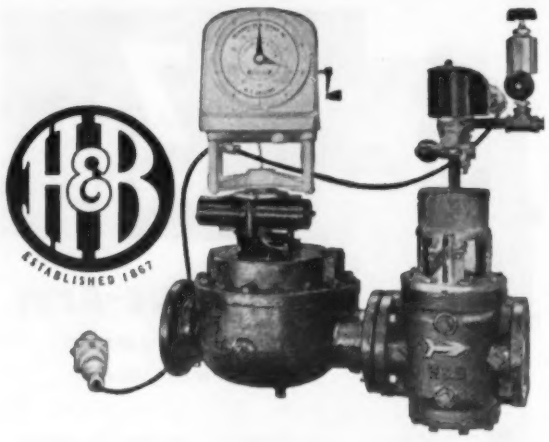
"Man Friday"

You'll never run out of uses for this high-fidelity Foxboro Portable Potentiometer. Use it to check overall accuracy of your temperature instruments and thermocouples; as a substitute temperature instrument during emergencies, for exploring temperatures not requiring continuous measurement.

Accurate to ¼ of 1% of scale. Extra-long (17") scale for close, accurate reading and *vernier dial* for precise balancing. Weighs only 11¼ lbs. Rugged metal case-and-cover. Write for details. **The Foxboro Company, 662 Neponset Ave., Foxboro, Mass., U.S.A.**

FOXBORO REG. U. S. PAT. OFF. PORTABLE POTENTIOMETERS

For more details circle NED-877 B7 on enclosed inquiry slip



JACKETED METER . . . with micro adjustment and automatic resetting

For the proper handling of heavy liquids, all meters, pumps, pipes and valves handling such materials should be jacketed. In any liquid processing operation where the maintenance of uniform temperature in the process pipes is necessary, an H & B jacketed system will assure dependable, economical production. Write for Bulletin Fl-56.

HETHERINGTON & BERNER INC.
719 KENTUCKY AVENUE INDIANAPOLIS 7, INDIANA

For more details circle NED-878 B7 on enclosed inquiry slip

FOR QUICK, ON-THE-SPOT
INSTALLATION and REPAIR...

REDI-BOLT®
THREADED STEEL RODS

13 SIZES 3/16" to 1-1/2"

CUT TO LENGTH YOU NEED

HEAT AND BEND TO ANY SHAPE

NO SPECIAL BOLT INVENTORIES

NO THREADING NECESSARY

Here's a versatile, new installation and repair material with 1001 industrial applications! If you want to get machinery back to work with the least possible delay . . . or make an installation promptly and easily . . . REDI-BOLT is the answer. Save time, trouble, and money with this precision-threaded, steel rod. It eliminates big "special bolt" inventories, too. REDI-BOLT can be supplied in *zinc plate* or rust-resistant finishes and is available in 24" and 36" lengths (other lengths on special order) with *Standard National Coarse* and *SAE* or *National Fine* threads.

FOR HANGING PIPE, DUCT OR EQUIPMENT

Hang steam and water pipes, ducts, and conduit *more easily*. Needs no threading.

Mount machinery on floors or benches . . . equipment on panels or walls!

USE IT FOR PRODUCTION RUNS, TOO

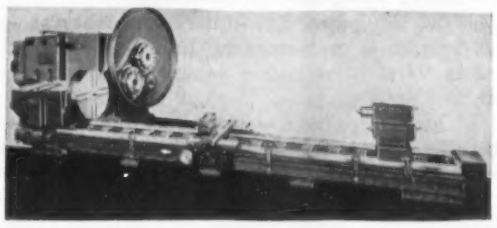
Ask your Mill Supply House, or write

REDI-BOLT, Inc., 5312 Indianapolis Blvd., East Chicago, Ind.

For more details circle NED-879 B7 on enclosed inquiry slip

DUAL SPINDLE LATHE
turns small or large diameter work and uses standard attachments

Upper spindle with an over-the-bed swing of 60 in. and a lower spindle with a 40-in. swing, provide this dual spindle lathe with facilities for both large and



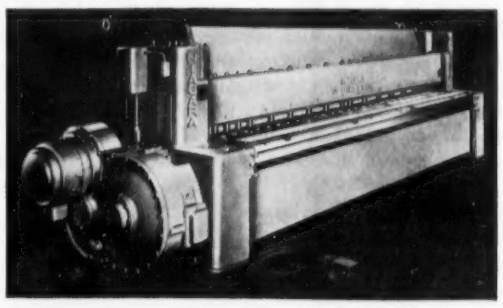
small diameter work. Two spindles are positioned for maximum operator convenience. Various drives can be engaged or disengaged at will, yet are protected by a mechanical safety interlock arrangement.

Work can be held stationary between the upper spindles while an attachment, mounted on the carriage, performs milling or grinding operations. Lathe can support 15 tons between centers and beds may be of any length, up to 35 ft in one piece between centers. All standard attachments are available and applicable. Forty thread and feed changes can be selected. Made by **Boye & Emmes Machine Tool Co.,** 117 Caldwell Dr., Cincinnati 16, O.

For more details circle NED-880 B7 on enclosed inquiry slip

POWER SQUARING SHEARS
has light beam shearing gage among time and labor saving features

Hinged back gage angle which enables long plates to be fed through the machine is among labor saving features and accessories available on line of under-



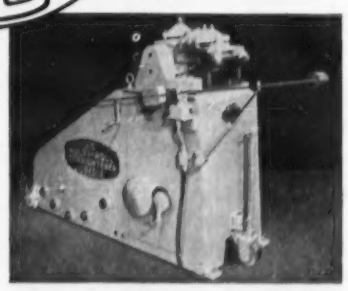
drive squaring shears. Adjustable parallel micrometer back gage, standard on all models, permits rapid, precise setting for cutting blanks or strips without rules or wrenches.

Also available are light-beam or shadow-line type shearing gage, disappearing adjustable stops, remote control electric foot switch and stationary safety guard. Fifty-nine models have capacities from 16-gage to 1-in. mild steel and cutting lengths from 4 to 20 ft. Made by **Niagara Machine & Tool Works,** Northland Ave. & Chelsea St., Buffalo 11, N. Y.

For more details circle NED-881 B7 on enclosed inquiry slip

USE US PRODUCTS ★

Model PDSC-940 (Portable) Capacity. Material up to 9" wide x 1/8" thick. Coils with O.D. up to 40". Also made in other sizes.



REDUCE PRESS-ROOM COSTS

★ **U. S. PRODUCTS**
- Slide Feeds
- Roll Feeds
- Stock Straighteners
- Stock Reels
- Stock Oilers
- Coil Cradles
- Wire Straighteners
- Die Sets
- Multi-Slides®
- Multi-Millers®

Don't allow inefficient operations to devour your profit margin. U. S. Automatic Pressroom Equipment is designed and built to help you effect savings in the production of stampings.

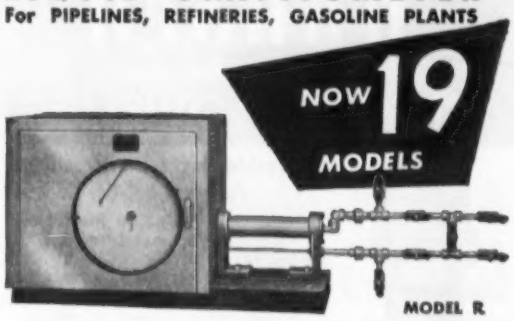
The use of coil stock in press operations generally results in the need for a Straightener and a Coil Holder. On operations of this type you can improve efficiency, and at the same time conserve valuable floor space by using a U. S. Combination Coil Cradle and Power-Driven Straightener of the type illustrated above.

Your inquiries are invited. Ask for Bulletin 100-N.

U. S. TOOL COMPANY, INC.
AMPERE (East Orange) NEW JERSEY

For more details circle NED-882 B7 on enclosed inquiry slip

ARCCO-Anubis
LIQUID GRAVITOMETER
For PIPELINES, REFINERIES, GASOLINE PLANTS



This ruggedly built instrument of laboratory accuracy is ideal for quick checking and for continuous recording of Specific Gravity of liquids under line pressure. Changes in Specific Gravity of sample are recorded with a very minimum of time lag. Foreign liquids and gases are automatically purged from sample. No moving joints or stuffing boxes to cause friction or leakage. Temperature corrected, this precision instrument is adaptable to high pressures. Hundreds are in daily use in plants and refineries of major companies. Available in 19 Models for Recording, Signalling, Transmitting and Controlling. Send for Bulletin 111R-3.

AMERICAN RECORDING CHART CO.
3113 E. 11th St. • Los Angeles 23, Calif.

AVAILABLE FOR EARLY DELIVERY

For more details circle NED-883 B7 on enclosed inquiry slip

HEVI DUTY ELECTRIC COMPANY
FOR TEMPERATURES FROM 1700° F. TO 2600° F.

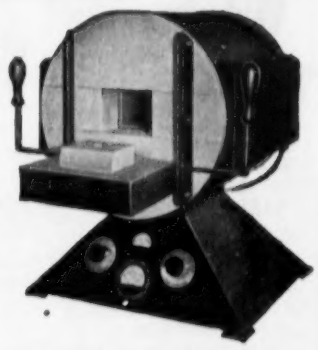
Use The

HEVI DUTY G-05-PT FURNACE

Inside Diameter 4⅛"W. x 7"L. x 2¾"H.

3500 WATTS

Write for Bulletin LAB-250A



- ☆ Less Heat Loss — Improved Insulation and No Rheostats
- ☆ Better Control — Through a 48 Step Tap Changing Transformer
- ☆ Easily Replaceable Silicon Carbide Type Heating Elements
- ☆ Indicating Pyrometer and Tap Switches Mounted in Sliding Drawer

HEVI DUTY ELECTRIC COMPANY
HEAT TREATING FURNACES HEVI-DUTY ELECTRIC EXCLUSIVELY
DRY TYPE TRANSFORMERS — CONSTANT CURRENT REGULATORS
MILWAUKEE 1, WISCONSIN

For more details circle NED-884 B7 on enclosed inquiry slip

BLACK LIGHT STOPS BURGLARS!

By using a beam of invisible 'black light,' Kidde's tamper-proof Photo-Electric Alarm provides complete burglar and intrusion protection up to a range of 900', indoors or out. If beam is broken, alarm sounds locally or at central station. Rugged, transistorized circuit draws only 6½ watts. Optional batteries keep system in operation if main power fails. Write Kidde for more details.

The words 'Kidde', 'Lux', 'Lux-O-Matic', 'Fyre-Freez' and the Kidde seal are trademarks of Walter Kidde & Company, Inc. and its associated companies.

Kidde

ULTRASONIC DIVISION
Walter Kidde & Company, Inc.
224 Main St., Belleville 9, N. J.

For more details circle NED-885 B7 on enclosed inquiry slip

HANSEN

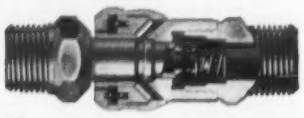
QUICK-CONNECTIVE

PUSH-TITE® COUPLING

Provides Instant Automatic Flow or Shut-Off

To connect a Hansen Push-Tite Coupling, you merely push the Plug into the Socket with one hand. Flow is instantaneous.

To disconnect, push back sleeve on Socket . . . Coupling disconnects and flow is shut off instantly and automatically. No tools required. When Coupling is connected, Plug is free-swiveling, thus eliminating any possibility of kinks in hose.



Two-way shut-off and straight-through Couplings also available.
WRITE FOR CATALOG

THE HANSEN MANUFACTURING COMPANY

4031 WEST 150th STREET • CLEVELAND 11, OHIO

For more details circle NED-887 B7 on enclosed inquiry slip

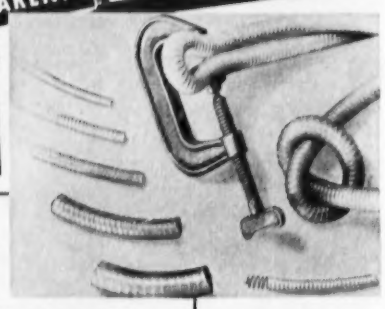
Solve your difficult piping problems with...

BARDEX

TRANSPARENT

FLEXIBLE

CRUSH-PROOF



BARDEX is pliable, plastic P. V. C. Tubing

It will solve your difficult piping problems because it is

- Virtually uncrushable since it has a tempered steel spring within its walls not exposed to either surface
- Resistant to gasoline, oils, high octane fuels, etc.
- 100% weatherproof with a working temperature ranging from 170°F to –5°F
- Acid-resistant
- Transparent
- Light in weight

You can distort or knot BARDEX and the bore remains the same and this versatile tubing eliminates the problems of misalignment, vibrations, expansion, flexation and contraction. Sizes available are from ⅛" to 1" I.D.

Write, wire or call for a free sample and specifications

NEWAGE INDUSTRIES

222 OLD YORK ROAD • JENKINTOWN*, PA.

TUrner 4-8404 (*Suburb of Philadelphia)

For more details circle NED-888 B7 on enclosed inquiry slip

Elevates work to right height

RAYMOND

Portable Elevating Table

SPEED UP PRODUCTION with a Raymond Portable Table that elevates work to convenient height. Foot pedals raise and lower table hydraulically, leaving operator's hands free. 30" sq. top rotates or locks. Standard model elevates 28" to 44". Telescopic model, 28" to 50". Capacity 2,000 lbs.

The RAYMOND CORPORATION

4112 Madison St., Greene, N.Y.

NAME TITLE

COMPANY

STREET

CITY STATE

FREE . . . send latest Raymond Portable Elevating Table literature.

For more details circle NED-889 B7 on enclosed inquiry slip

New Literature and Catalogs

Laboratory Equipment & Furniture

Metalab Equipment Co.—Interchaneability of doors and drawers is a feature of Interflex construction used in Metalab laboratory equipment and furniture, described in illustrated 12-page catalog 55-A. Included are center and wall tables, fume and radioactive fume hoods, storage cabinets, sectional units, service fixtures and other units for use in many fields.

For more details circle NED-890 B7 on enclosed inquiry slip

Corrosion Resistant Motors

Robbins & Myers, Inc.—Corrosion resistant steel housing which protects against adverse weather conditions is incorporated in series 254-U rerated motors, described and illustrated in 8-page bulletin 3470. Integral parts are also treated. Other features include Mylar laminated to rag paper in slot cell insulation, "dual-sweep" ventilation and wide sealed bearings.

For more details circle NED-891 B7 on enclosed inquiry slip

Tube Working Tools

Parker Appliance Co., Tube & Hose Fittings Div.—Hand tools, including tube cutters, flarers and benders, and bench mounted benders, power flarer, straight thread tapping and counterboring tools are among the tube working tools detailed in 24-page Fabricating Equipment Catalog 1140. Section on how to use them is included.

For more details circle NED-892 B7 on enclosed inquiry slip

Plastic Equipment

Haveg Industries, Inc.—32-page 25th Anniversary catalog C-14 gives data on wide range of synthetic resin formulations and details pipes and fittings, valves, fume ducts and systems, tanks, towers, heat exchangers, pressure and vacuum equipment, and agitators. New products include glass-reinforced polyester, polyvinyl chloride and Teflon equipment.

For more details circle NED-893 B7 on enclosed inquiry slip

Resins for Shell Molding

Allied Chemical & Dye Corp., Barrett Div.—32-page booklet "Plaskon Resins for Shell Molding" describes process for casting metal with emphasis on cost, available types of shell molding machinery, gating techniques, pattern design, resin bonding of molds, special metals handling and sand reclamation. Shell molding machinery and typical pattern designs are illustrated.

For more details circle NED-894 B7 on enclosed inquiry slip

Metal Melting & Heating Equipment

Inductotherm Corp.—The Inducto line of induction melting furnaces and related equipment is subject of 8-page bulletin 70. Piece provides installation photos as well as complete product information on both the motor-generator induction melting furnaces and Inducto metal-melters. Melting times of various quantities of molten metal are tabulated.

For more details circle NED-895 B7 on enclosed inquiry slip

Mechanized Heat Treating

Surface Combustion Corp.—Fold-out bulletin SC-176 points up the economic features of completely mechanized heat treat lines. Isometric drawings show 24 basic furnace mechanisms, and photos and diagrams illustrate steps used in building automated lines.

For more details circle NED-896 B7 on enclosed inquiry slip

Medium & Light Duty Casters

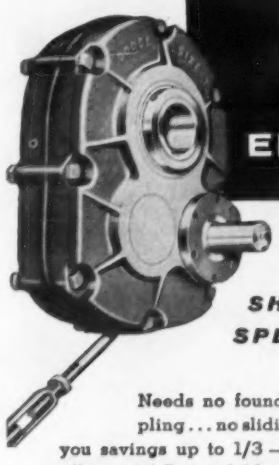
Gleason Corp.—Over 40 new models are listed in 4-page catalog 412-A on line of medium and light duty casters. Uses for casters in 30 separate industries are pointed out. Line includes solid rubber, semi-pneumatic and full pneumatic wheels. Selection data are based on load requirements and floor conditions.

For more details circle NED-897 B7 on enclosed inquiry slip

Closed-Circuit TV Equipment

Radio Corp. of America—Comprehensive 28-page guidebook shows latest RCA equipment for color and black-and-white closed-circuit television service in the institutional and industrial fields. Case histories of typical installations are presented. Signal distribution systems, control consoles, associated studio equipment and special-effects equipment are described as well.

For more details circle NED-898 B7 on enclosed inquiry slip



97% EFFICIENCY

Torque-Arm

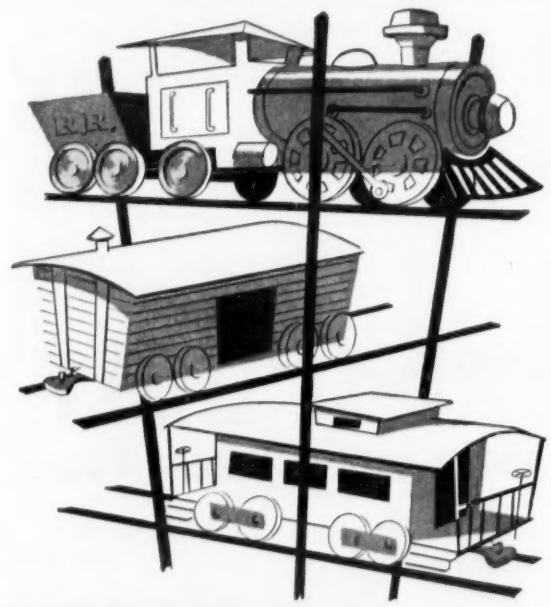
SHAFT-MOUNTED SPEED REDUCER

Needs no foundation . . . no flexible coupling . . . no sliding base. Torque-Arm gives you savings up to 1/3 — and delivers up to 97% efficiency! Dependable — proved in tens of thousands of installations. Single and double reduction series — 1 to 90 hp — output speeds, 12 to 378 rpm. Stocked by distributors. Write for Bulletin A-637.

DODGE MANUFACTURING CORPORATION
2100 Union Street Mishawaka, Indiana

DODGE of Mishawaka, Ind.

For more details circle NED-899 B7 on enclosed inquiry slip



YOU CAN STACK OR SHIP **ANYTHING** ON EMI RACKS

Equipment Manufacturing storage racks that stack, cut time and handling costs, protect workers and stock, and speed inventory.

E M I racks are made of strong, welded tubular steel and are adjustable to fit any space or unit load. Special racks designed to your specifications. Field engineering service on any installation.

Before you decide on a new warehouse, additional storage space or the purchase of stacking equipment write for our new catalog.

"Keep your materials WELL STACKED"

Write for our new Catalog

EQUIPMENT MFG. INC.

21566 HOOVER ROAD • DETROIT 5, MICHIGAN

Materials Handling Equipment Stacking Racks for Industry

For more details circle NED-900 B7 on enclosed inquiry slip

BOX TYPE HOLDER

marks round or flat products

A reinforced outer box levels the type holder on the piece being marked, allowing improved efficiency in marking a great variety of round and flat products. Type holder rides freely inside of the box, with a shepherd hook pin keeping it from falling out. The Mecco Safety Box Type Holder is available for any size or number of characters. Holder is constructed of one piece of Mecco Safety Steel, a special tool steel alloy developed specifically for marking product use. Use of this steel provides maximum service and resistance to spalling and mushrooming. **Write for bulletin 517.** Made by **M. E. Cunningham Company,** 1055 Chateau Street, Pittsburgh 33, Pa. *Advt.*

▲ For more details circle **NED-901 B7** on enclosed inquiry slip ▲

READ BOTH AC AND DC with TONG TEST Ammeters

Only Tong Test measures both alternating and direct current. Simply snap the tongs around electrical conductor for instant readings . . . only one scale to read at a time. Ranges up to 1000 amperes are quickly interchangeable, cannot burn out for there are no windings.

Lightweight, accurate, safe, dependable . . . Columbia Tong Test is available in five types to accommodate conductors up to 3⅞" diameter, or bus bars up to 4½" x ½"

6490-CE

COLUMBIA

COLUMBIA ELECTRIC MFG. CO.
4525 Hamilton Ave., Cleveland 14, Ohio
Catalog No. ND-400

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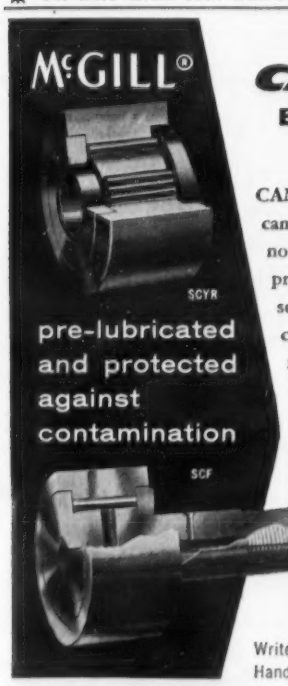
McGILL®



sealed CAMROL BEARINGS

CAMROL cam follower and cam yoke roller bearings are now available in the sealed and pre-lubricated SCF and SCYR series for your critical applications. A black ferrous oxide finish protects all external surfaces from rust and corrosion. For stud-, shaft-, or yoke mounting use sealed CAMROL bearings to avoid frequent re-lubrication and contamination in cam action or guide and support roller applications.

Write for helpful bearing Handbook No. H-54-B

McGILL® *precision needle bearings*

McGILL MANUFACTURING CO., INC.
101 N. LAFAYETTE ST. VALPARAISO, INDIANA

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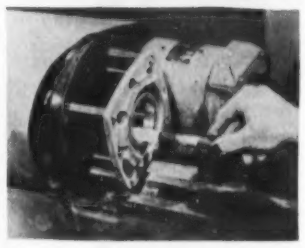
New Processes and Materials

BEARING PLATING PROCESS

assures tight fit between ring and housing, prevents seizing, galling



Fretting corrosion, seizing and galling in antifriction bearings can be avoided by means of the Dalic process of plating the outer surface of bearing rings with a soft metal. This metal will conform during press-fitting, or compress in a shrink-fit to fill the space between bearing and stationary machine member. Tin, cadmium, copper or silver can be used.

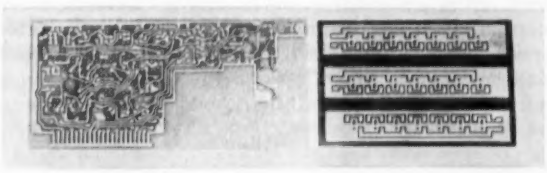
Process unit consists of rectifier capable of making deposits accurate to within 0.00005-in. Cathode is clamped to work, the anode to the stylus used to apply plating solution. Part is rotated in low-speed lathe as shown. Area to be plated is swabbed with solution-saturated cotton wrapped around anode stylus. If housing is large, swabbing need not be done on lathe. A tin plating of 0.0002 to 0.0005-in. will usually be enough to assure a tight, vibration-resistant fit. Deposit, obtained in about 2 to 3 minutes, is dense and free of porosity. Equipment is available through **Marlane Development Co.,** Dept. 201, 153 E. 26th St., New York 10, N. Y.

▲ For more details circle **NED-904 B7** on enclosed inquiry slip ▲

PRINTED CIRCUIT SERVICE

ranges from design to manufacture

Printed circuit service ranging from design to manufacture offers latest techniques to various branches of the electronic industry. Among facilities offered



by Printed Circuit Laboratory are those for rapid etching of copper laminates, plating ranging from solder coating to gold, processing printed circuit resist patterns by several techniques including photography, automatic potting and encapsulation, and protection of circuits by protective coatings. Development of special dielectrics and laminates is also part of service. Printed circuit examples are shown. Offered by **Federal Telephone & Radio Co.,** 100 Kingsland Rd., Clifton, N. J.

▲ For more details circle **NED-905 B7** on enclosed inquiry slip ▲

SPEED DOCK LOADING Insure SAFE Handling

Now . . . at low cost, equip your loading dock to meet every carrier level. Sturdy steel lip of Globe's new Trans-O-Matic Ramp moves up or down . . . rides automatically with truck bed during loading or unloading.

SMOOTHEST TRAFFIC FLOW

Cross-over for fork trucks and pallet loads is smooth and safe . . . dangerous gangplanks and nailed-down plates eliminated . . . accidents and breakage prevented. Box type reinforcement assures rigid platform.

EASY, SAFE OPERATION

Dependable hydraulic power does the work . . . control is by push-button within easy reach of workers. Automatic Safety Lock prevents sudden drop if truck pulls out. Rugged power unit is fully protected against dirt and weather. No excavation or piping needed; easily, quickly installed at any loading dock.

GLOBE®
TRANS-O-MATIC RAMPS
PLANTS: DES MOINES - PHILADELPHIA - LONG BEACH, CAL.

Want More Information?
Write for complete data today.
GLOBE HOIST COMPANY
East Mermaid Lane at Queen St.
Philadelphia 18, Pennsylvania

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For Faster, Better Soldering

Use Rubyfluid

RUBYFLUID'S better soldering flux—liquid or paste—assures you of strong, neat unions, quickly and easily. RUBYFLUID'S fast acting formula wets out freely . . . is free from objectionable and harmful fumes . . . is economical to use.

For stainless steel soldering, use RUBY'S Special Stainless Steel flux . . . designed specifically for this application . . . requires no extra heat, no extra equipment, will not corrode or discolor metal.

RUBY CHEMICAL CO.
72 S. McDowell Street Columbus 8, Ohio

Rubyfluid

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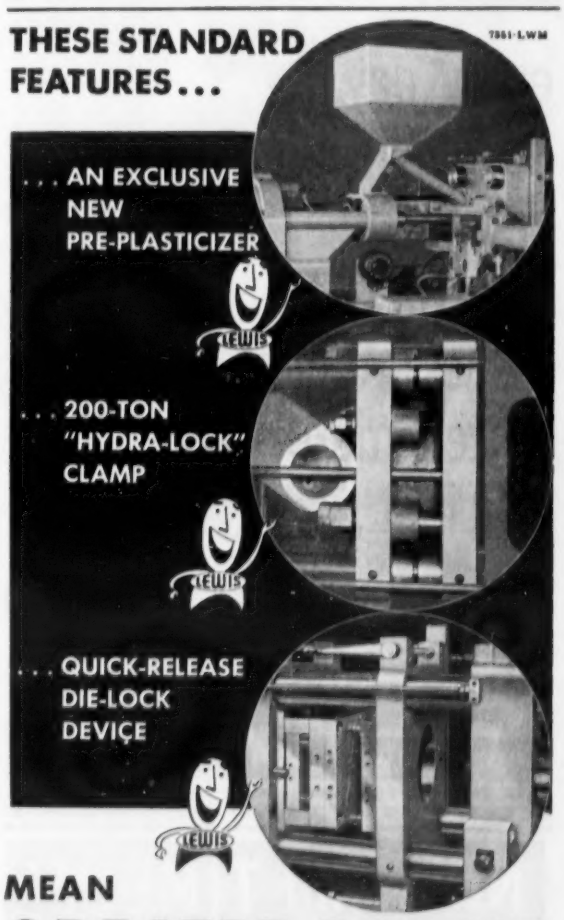
THESE STANDARD FEATURES . . .

7551-LWM



MEAN GREATER PROFIT FOR PLASTICS MOLDERS

WITH THE LEWIS 6P

First 8-ounce machine to offer a pre-plasticizer as *standard equipment,* MODEL "6P" features production advantages never before possible with machines in its size and price range. Pre-plasticizer design permits intermittent operation without burning or flashing . . . greatly decreased injection pressures and temperatures . . . new capacities and flexibility.

FOR DETAILS AND PRICES . . . write today or call KEnmore 1-3040.

THE LEWIS WELDING & ENGINEERING CORP.
Machine Division
23005 St. Clair Avenue, Cleveland 17, Ohio

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LET'S PUT OUR MULTIPLE HEADS TOGETHER!

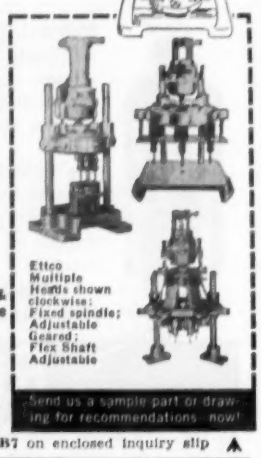
. . . and plan your small hole drilling & tapping operation on a low cost, maximum production basis

ETTCO-EMRICK
MULTIPLE SPINDLE HEADS

UNIT-ENGINEERED *for drilling or tapping on any drill press*

No one type will do for every job. That's why we make 'em all—and the correct custom tooling for faster handling of the parts. The Ettco system is a completely integrated service; not just multiple heads with spindles reaching into the air!

Ettco engineers can tell you without obligation which type best suits your specific job. They're all easily attachable to your present drill press, tapping machine or automated special. Standardized, reuseable components mean lowered costs. Interchangeable face plates permit quick switch from tapping to drilling. Write for catalog.



Ettco-Emrick — The only complete line manufacturer of drilling & tapping equipment for the entire small hole field

See your authorized Ettco distributor
ETTCO TOOL & MACHINE CO., INC.
588 Johnson Avenue, Brooklyn 37, N. Y.

▲ For more details circle NED-909 B7 on enclosed inquiry slip ▲

every day, designers are discovering new ways to make products better, more efficient...with

Precision manufactured from DuPont Nylon Resin to close tolerance of ± .001 on diameters and .001 on sphericity, Ace Nylon Balls give **design flexibility** and **production economy**. Light in weight . . . tough at low temperatures . . . stable at high temperatures . . . resistant to corroding chemicals such as sulphuric acid, etc. . . almost abrasionproof . . . these mass-produced balls have hundreds of industrial applications. Come in 14 standard sizes from 1/8" to 3/4". Complete facilities for fabrication of plastic parts for all industries. Estimates submitted promptly on receipt of blueprints or specifications. Write for samples, bulletin, price list TODAY.

ACE PRECISION NYLON BALLS

ACE PLASTIC COMPANY *Extrusion Molders and Fabricators*
91-28 Van Wyck Expressway, Jamaica 35, N. Y.

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NEW and TIMELY!

Get This Information on How to Select Stainless Steels to . . .

- ✓ Conserve Critical Alloys
- ✓ Reduce Unit Costs
- ✓ Improve Performance

This new, 18-page bulletin, "Factors in Selecting Stainless Steels" gives facts and figures on . . .

- Possibilities of straight chrome grades as alternates for chrome nickel grades
- General types of stainless steels
- Physical and mechanical properties
- Relative workability tables
- Relative corrosion and heat resistance

CLIP AND MAIL COUPON NOW!

THE CARPENTER STEEL COMPANY
118 W. Bern St. • Reading, Pa.
At no obligation, send me a copy of your new "Factors in Selecting Stainless Steels".

NAME _____ TITLE _____
(Please Print)
COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

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New Literature & Catalogs

Condensed Data on Plastics

Bakelite Co.—"Condensed Reference File of Bakelite Plastics" is 16-page guide for designers, engineers and fabricators to over 50 forms of polyethylene, vinyl, phenolic, styrene, epoxy and polyester plastics. Capsule information is given on background, characteristics, fabrication and typical applications of each type.

▲ For more details circle NED-912 B7 on enclosed inquiry slip ▲

Standard Metal Shapes

Commercial Shearing & Stamping Co.—Factual information on die-formed standard metal shapes is presented in 24-page Catalog P3. Shapes include circular, obround and rectangular; with flat, embossed, offset, dished and other contours; and with or without flanges and/or various shaped center openings. Available sizes and gages are shown.

▲ For more details circle NED-913 B7 on enclosed inquiry slip ▲

Reducing Paperwork for Production Control

Charles Bruning Co.—Step-by-step methods for using low-cost translucent operations sheets to produce parts production orders by means of Copyflex diazotype copying machines are explained in 8-page bulletin A-2282. Up to 90 per cent of the writing is reportedly eliminated in preparing production and assembly orders.

▲ For more details circle NED-914 B7 on enclosed inquiry slip ▲

Miniature Sealed Switches

Haydon Switch Inc.—Developed as a handy switch idea folder, catalog No. 5 contains complete information on miniature hermetically-sealed switches. Covered are single and double blade types as well as special designs for custom applications. Standard and special actuators for varying control needs are shown.

▲ For more details circle NED-915 B7 on enclosed inquiry slip ▲

Electric Power Drives

Sterling Electric Motors, Inc.—20-page illustrated catalog contains condensed data, selection information and prices on electric power drives. Described are normal speed electric motors, geared motors, variable speed transmissions and speed reducers. Electrical and mechanical modifications are listed, and such accessories as magnetic brakes, slide rails and bases, and controls are presented.

▲ For more details circle NED-916 B7 on enclosed inquiry slip ▲

How to Store & Handle Parts & Tools

Stackbin Corp.—How the Stackbin System can be used to obtain optimum results at minimum cost in the storage and handling of parts, tools and materials in industrial plants is clearly explained in 20-page guidebook No. 505. Detailed facts, figures, prices and dimensions are given on complete line of racks; storage, assembly and handling bins; materials handling containers; shop bins and boxes; tool storage cribs; shelves and other shop equipment.

▲ For more details circle NED-917 B7 on enclosed inquiry slip ▲

stocks high? space tight? labor short?

solve the problem with

FLEXANGLE
UNIVERSAL SLOTTED ANGLE SYSTEM

Easy-to-erect—Efficient—Economical Ready for use by anyone, for any purpose, anywhere!

Pre-painted enameled finish steel, fire-resistant, rustproof . . . pre-slotted, measure-marked, can be cut or joined at 3/4" intervals for exact size in desired shape without waste . . . no drilling, no welding, just cut and bolt . . . 3 bolts in bearing at every joining make it rigid . . . disassembles easily, stores compactly, can be re-assembled in new form. A practical solution for in-plant structure problems!

Authorized distributors in all principal cities carry stocks for immediate delivery. Write for informative bulletin TODAY.

FLEXANGLE CORPORATION
274 Park Road, West Hartford 7, Connecticut

▲ For more details circle NED-918 B7 on enclosed inquiry slip ▲

Just a DUO-FAST STAPLE but it can **SAVE YOU MONEY!**

DUO-FAST AIR TACKERS speed and simplify tacking of backs onto case goods, cabinets, displays.

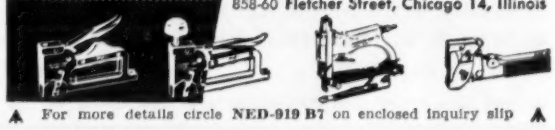
DUO-FAST *Automatic* Staple Tackers

Just one of the countless jobs speeded and simplified by DUO-FAST Automatic Staple Tackers.

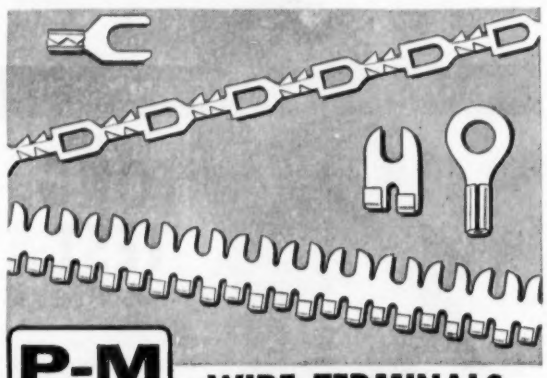
There is a Model to Save You Money

Send for the Duo-Fast Catalog showing the complete line of Staplers, Tackers and Staples.

50 Offices in Principal Cities
FASTENER CORPORATION
858-60 Fletcher Street, Chicago 14, Illinois



▲ For more details circle NED-919 B7 on enclosed inquiry slip ▲



P-M WIRE TERMINALS

loose . . . or continuous strip

Quick delivery from thousands of types in stock . . . or produced to your specifications.

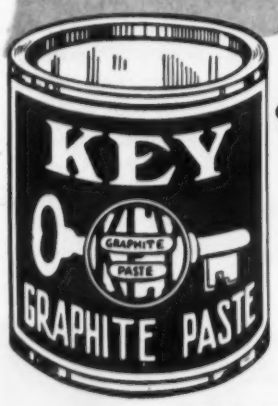
Either way, P-M is your best buy in quality electric wire terminals. Our experienced staff of engineers is backed by modern expanded factory facilities. The result is a top team in the terminal league.

WRITE FOR CATALOG

P-M PATTON-MacGUYER COMPANY
16 Virginia Ave., Providence 5, R. I.

▲ For more details circle NED-920 B7 on enclosed inquiry slip ▲

SEAL JOINTS SECURELY with



KEY GRAPHITE PASTE

The Tight Sealing, Easy Breaking Industrial Pipe Joint Compound

•

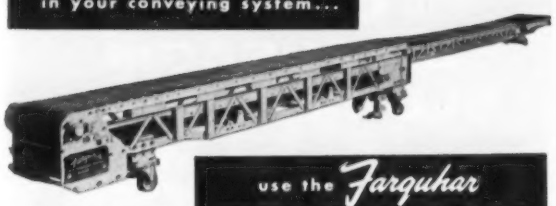
Order From Your Industrial Supply House

W-K-M
DIVISION OF acf INDUSTRIES INCORPORATED

Plant: Missouri City, Texas • Mailing Address: P.O. Box 2117, Houston, Texas

▲ For more details circle NED-921 B7 on enclosed inquiry slip ▲

Don't have a "missing link" in your conveying system...



EXPAND-O-VEYOR Model 439...base unit is 15 feet and expands to 25 feet. Model 439A is 26 feet and expands to 43 feet.

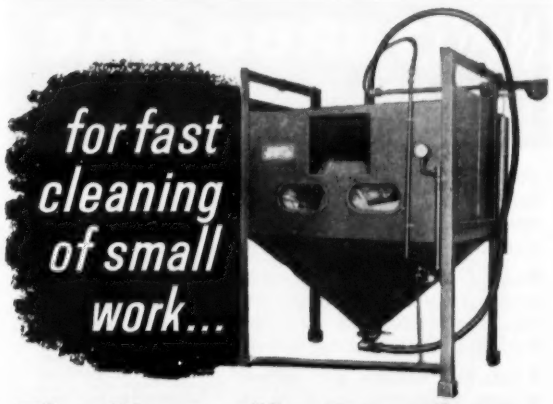
use the Farquhar EXPAND-O-VEYOR the convenient adjustable-to-length conveyor

WHY have a "no man's land" between your indoor conveying system and the trucks that have to be loaded and unloaded? It's easy to fill in the gap and eliminate unnecessary steps with a Farquhar EXPAND-O-VEYOR adjustable power belt conveyor. That's because the EXPAND-O-VEYOR has a moveable conveyor boom that can be adjusted to *any length* within its minimum and maximum lengths. This provides a "live" link between your plant conveyors and your trucks. Handling is faster, easier and better controlled with a Farquhar EXPAND-O-VEYOR on the job.

Now you can get the last foot of efficiency out of your conveyor line. Write or phone for additional facts now—and save money tomorrow!

OLIVER A. B. FARQUHAR DIVISION
Farquhar CONVEYORS
The Oliver Corporation
Conveyor Dept. F-04, York, Penna.
Factory Branch: 618 W. Elm St. Chicago, Ill.
POWER BELT AND GRAVITY CONVEYORS
Also makers of Farquhar Hydraulic and Mechanical Presses

For more details circle NED-922 B7 on enclosed inquiry slip

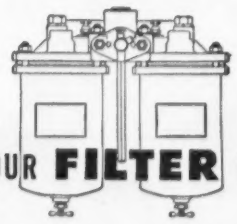


The Versatile Pangborn Blast Cleaning Cabinet

This Pangborn Cabinet is perfect for small or intermittent jobs! Use it for production or maintenance ... use it with any type of abrasive, at almost any air pressure. You'll find that it cleans quickly and thoroughly, that it is easy, economical and safe to operate. Shipped fully assembled ... from $365.00 up. For full details, write to PANGBORN CORP., 2400 Pangborn Blvd., Hagerstown, Maryland.

Pangborn
BLAST CLEANS CHEAPER

For more details circle NED-923 B7 on enclosed inquiry slip



WHAT IS YOUR FILTER PROBLEM?

Coolants on lathes and grinders	Hydraulics	Fuels
Paints, varnishes and lacquers	Toothpastes	Waxes
Sugar, confections and syrups	Cup greases	Drugs
Refrigerating fluids	Lubricants	Acids
Coating materials	Chemicals	Inks
Food Products • Beverages	Gasoline	Air

Purolator's comprehensive Filter Catalog will give you valuable technical assistance in a wide range of liquid and semiliquid filtering applications. Send for your free copy. Or submit your particular filter problem to the designing and manufacturing experience of the oldest filter manufacturer in the United States. No obligation, of course.

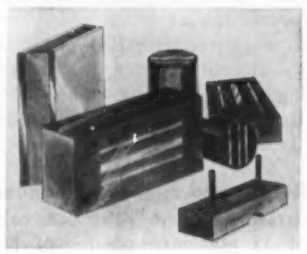
Filtration For Every Known Fluid

PUROLATOR
PRODUCTS, INC.
Rahway, New Jersey and Toronto, Ontario, Canada

For more details circle NED-924 B7 on enclosed inquiry slip

New Processes & Materials

CERAMIC MAGNET ASSEMBLIES
custom made for varied applications



Transfer of parts in automated operations and retaining of parts in assembly operations are among many diverse uses for permanent magnetic assemblies. Indox magnets have maximum resistance to demagnetizing fields and ability to recover, even when demagnetized in zero flux. Assemblies are available in standard sizes from 3/8-in. diameter up and in special sizes. Insulated for insertion in steel holders, they are attached to soft steel pole pieces, then molded into an epoxy resin with only the contact surface of the pole pieces exposed. All shapes and sizes, including contoured forms, are available, and can be machined. Made by **Storch Products Co.**, 9232 Greenfield, Detroit 28, Mich.

For more details circle NED-925 B7 on enclosed inquiry slip

TRANSPARENT LABELS
of pressure-sensitive acetate

Printed on acetate, line of transparent pressure sensitive labels save time in making changes on vellums used for blue prints and drawings, and for quick addition of other information. Labels are furnished plain or printed to provide ruled or columnar data. They can be drawn, written or typewritten on and stay firmly in place for any required number or printing operations. Standard or special types in wide variety of sizes are offered by **Archer Label Co.**, Dept. NED-2, 783 Kohler St., Los Angeles 21, Calif.

For more details circle NED-926 B7 on enclosed inquiry slip

PLASTIC FUME DUCTS & HOODS
made with glass or synthetic fibers

Tensile and flexural strengths up to 15,000 and 30,000 psi, respectively, are featured by Duracor fume ducts and hoods fabricated of thermo-setting plastic

combined with glass or other synthetic fibers. Made to virtually any required shape, ducts and hoods are chemical resistant, lightweight and easily worked. Resistance to hydrofluoric and other acids as well as alkalies and solvents is high. Plating, pickling and chemical fume applications are typical. Made by **Ceilcote Co.**, 4838 Ridge Rd., Cleveland 9, O.

For more details circle NED-927 B7 on enclosed inquiry slip

ADJUSTABLE FLOW REGULATOR

Fully adjustable from 0.5 GPM to 20 GPM. Maintains a constant rate of flow regardless of work resistance or pressure fluctuations.

Also SOLENOID VALVES, MICRONIC LINE FILTERS and CHECK VALVES.

Write for latest illustrated bulletin H

WATERMAN ENGINEERING COMPANY
725 CUSTER AVENUE EVANSTON, ILLINOIS

For more details circle NED-928 B7 on enclosed inquiry slip

IMMEDIATE SHIPMENT

BAY TOOL CARRIER

- Strongest carrier of this type on the market
- Guide bars strengthen carriers and assure drawer alignment
- Individual padlock hasps on each drawer (padlocks not furnished)
- Size: 18" W x 24" L x 34" H. with casters, 31" H. without casters
- Drawers: 15¼" W. x 23¾" L. x 4¾" H.
- Trays: 1½" D.
- Casters: Four 2½" swivel
- Baked green finish
- Shipped set up on in a carton

PRICES F.O.B. FACTORY OR WAREHOUSE PHILA.

Complete Catalog and Price List on Request

Phone: BAldwin 9-1805

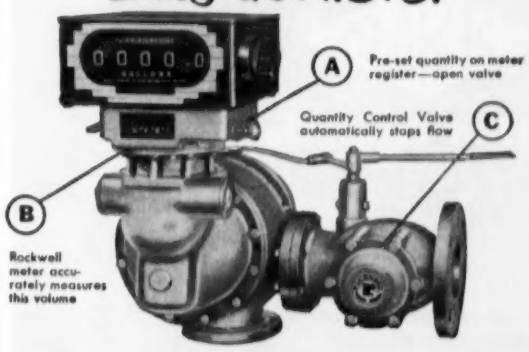
No. 203C-2D
$24.88
With steel casters, No Handle

No. 203-2D
$23.09
Without steel casters, No Handles

BAY PRODUCTS INC.
3009 North 16th Street, Philadelphia 32, Pennsylvania.

For more details circle NED-929 B7 on enclosed inquiry slip

Automatic Quantity Control
Easy as A.B.C.

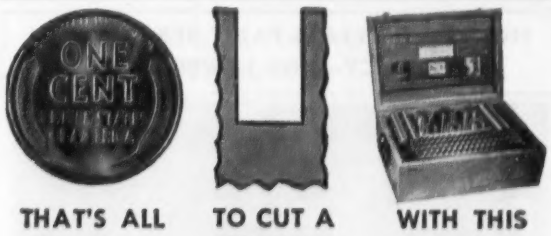


Pre-set Liquid Meter Shut-off ... Without Shock

This simple, rugged Rockwell system makes *automation* available to the process industries. It's the answer to many a costly problem in batching, blending or handling piped liquids. With electrical controls you can "set it and forget it" on repetitive operations. Available in stainless steel, bronze, steel or all-iron construction. Get facts now from *Rockwell Manufacturing Company*, Pittsburgh 8, Pennsylvania. Dept. 1128

ROCKWELL Industrial METERS

For more details circle NED-930 B7 on enclosed inquiry slip



THAT'S ALL IT COSTS — TO CUT A KEYWAY — WITH THIS KIT

One cent and one *Minute Man* Keyway Broach Kit—that's all you need to cut a keyway from 1/16" to 1" in any bore from 1/4" to 3". And it takes *only one minute.*

Minute Man Broaches for square and hexagonal holes and Production Type Keyway Broaches are also available from stock at your Industrial Distributor's.

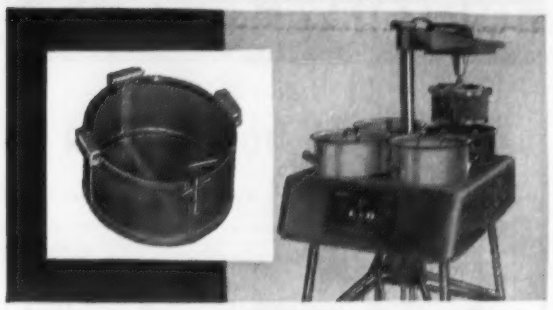
MAIL TODAY—SAVE TOMORROW

The duMONT CORPORATION, Greenfield, Mass.
MAIL FREE BROACH CATALOG AND PRICE LIST D describing Square Broaches, Hexagon Broaches, Production Type Keyway Broaches and Keyway Broach Kits to

Name .....
Company .....
Address .....

For more details circle NED-931 B7 on enclosed inquiry slip

MEET ANOTHER L & R PRECISION PRODUCT



THE L & R MONARCH
all-parts industrial cleaning machine

This new floor model precision cleaning machine offers greater capacity, more durable construction, more efficient cleaning, rinsing, polishing and drying operations. **FEATURES: Solution Containers, 10"x11½" deep • Triple Nesting Basket of Monel Mesh to segregate work • Cleaning Basket of Monel Mesh, 8" diameter x 4½" deep.**

Write for complete catalog on Precision Cleaning Machines, Cleaning and Rinsing Solutions, Flexible Shaft Machines, Buffing and Grinding Motors, Plastic Cement, Silver Contact Cleaner, Mallets and Hammers, Rust Remover.

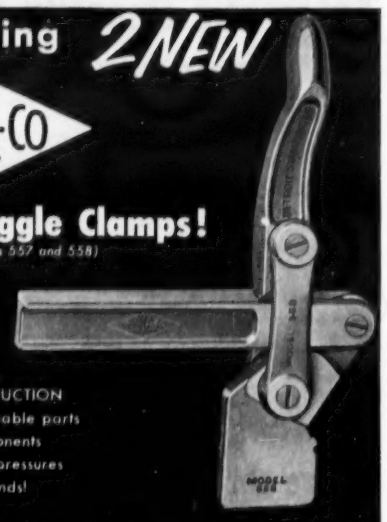
L & R MANUFACTURING COMPANY
579 Elm Street, Arlington, New Jersey

For more details circle NED-935 B7 on enclosed inquiry slip

announcing 2 NEW

DE-STA-CO

TITAN Toggle Clamps!
(Models 557 and 558)



- THE ULTIMATE IN RUGGED CONSTRUCTION
- completely replaceable parts
- forged steel components
- 4,000-lb. holding pressures
- weight of 4½ pounds!

OPEN POSITION

(Model 557 is the same as Model 558 except that Handle-angle provides complete clearance)

Send for FREE Literature on these new DE-STA-CO Titans—Models 557, 558!

DE-STA-CO DETROIT STAMPING COMPANY
WORLD'S FIRST LINE OF TOGGLE CLAMPS
360 Midland Avenue • Detroit 3, Michigan

For more details circle NED-936 B7 on enclosed inquiry slip

HOW TO INCREASE PAINT SPRAY BOOTH EFFICIENCY—AND LOWER COSTS!

Photo Courtesy Globe Hoist Co., Philadelphia, Pa.

RP PAINT ARRESTORS REDUCE MAINTENANCE, FLOOR-SPACE REQUIREMENTS, AND DOWNTIME

Efficiency and economy were combined to improve the paint spray operation in this booth illustrated. RP Paint Arrestor Pads trap overspray, are easily, inexpensively replaceable and adaptable to almost every type operation. If you spray paint—check the RP Paint Arrestor way to saving and efficiency.

WRITE FOR FREE BOOKLET

Helpful, informative suggestions to solve your paint spray booth problems. Write today.

RESEARCH PRODUCTS CORPORATION
Dept. 32 Madison 10, Wis.

RP . . . PRODUCTS OF RESEARCH

For more details circle NED-937 B7 on enclosed inquiry slip

New Literature & Catalogs

Solid Carbide Tools

Atrax Co.—100-page revised edition of the Atrax catalog of precision solid carbide tools covers such new items as miniature hole grinding burs and solid carbide routers. Sections cover burs, boring bits and tools, countersinks, center laps, cutters, drills, grinding tools, end and radius mills, routers and reamers. Data on use and care of tools is included.

For more details circle NED-938 B7 on enclosed inquiry slip

Reinforced Polyester Laminate

Glastic Corp.—28 electrical and physical properties of 11 standard grades of Fiberglas-reinforced polyester laminate are listed in chart. Such properties as swelling in humidity and after heat; flexure as received, after heat and when hot; and rigidity as received and when hot, are among those listed. Chart also lists common properties of phenolics for comparison.

For more details circle NED-939 B7 on enclosed inquiry slip

Dust & Mist Collectors

Aget Mfg. Co.—Dustkop dust and mist collectors range in size from 314 to 10,050-cfm. Large units can remove dust from up to 16 points simultaneously. Brief description of these collectors is provided in 4-page bulletin 710. Accompanying folder 636-3 which opens up into sizable wall chart provides engineering data on how to figure your own system of dust control; how to build your own hoods; and how to select the right collector for the job.

For more details circle NED-940 B7 on enclosed inquiry slip

Guide to Improved Packaging

Bakelite Co.—"1957 Guide to Improved Packaging" is 8-page booklet which shows how Bakelite polyethylene, styrene, vinyl and phenolic plastics are creating new techniques in packaging. Data will aid manufacturer in choosing the proper material for a specific packaging use.

For more details circle NED-941 B7 on enclosed inquiry slip

High Vacuum Pumps

F. J. Stokes Corp.—In addition to specifications on line of Microvac pumps for high vacuum, revised 28-page catalog 752 provides vacuum processing formulas, solutions to pumps selection problems and information on continuous oil purification and other maintenance procedures. Uses include high vacuum degassing and evaporation, drying, sealing, as well as impregnation operations.

For more details circle NED-942 B7 on enclosed inquiry slip

Plastics Molding

Richardson Co.—Thumb-nail case histories of 12 different applications of molded plastics in the automotive, electrical, appliance and industrial fields are given in 8-page manual, "Richardson Molded Plastics." Right-way and wrong-way sketches aid the designer of molded plastic parts. Properties of 13 different materials are charted.

For more details circle NED-943 B7 on enclosed inquiry slip

Diamond Abrasive Lapping

Penn Scientific Products Co.—"The Technology of Precision Lapping" is 28-page manual covering the use of fine diamond abrasives and the accessories required for their use in precision lapping and fine micro-finishing. Obtaining the proper lapped finish for cutting tools, dies, gages and precision wear parts is described along with 12 standard grit sizes.

For more details circle NED-944 B7 on enclosed inquiry slip

Die Casting with Zinc Alloys

Henning Bros. & Smith, Inc.—Pocket-size 32-page technical guide entitled "Die Casting with Zinc Alloys" discusses factors which influence production of sound castings, such as maintaining proper alloy temperature and rates of heat withdrawal and input during casting cycle. Proper venting and use of overflow wells, gate runner design and use of injection pressures over 1000 to 1600 psi are covered.

For more details circle NED-945 B7 on enclosed inquiry slip

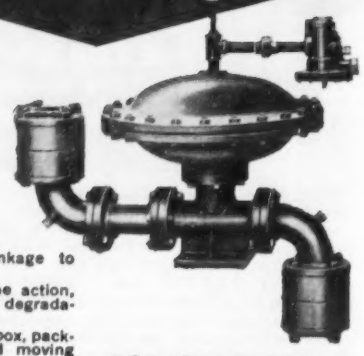
Strip Stock Stitcher & Shear

Herr Equipment Corp.—Described in 4-page bulletin 563 is a new automatic stitcher that joins the lead end of a new coil to the trailing end of a preceding coil with a straight, uniformly locked joint to facilitate continuous line processing of strip stock. Also shown is pneumatic twin-cut shear which trims the stitched joint out of the strip preparatory to recoiling.

For more details circle NED-946 B7 on enclosed inquiry slip

OLIVER DIAPHRAGM SLURRY PUMP

Simple . . .
Efficient . . .
Reliable



- No mechanical linkage to diaphragm.
- Gentle plunger type action, minimizes particle degradation.
- No motor, stuffing box, packing or high speed moving parts.
- Remote control metering and proportioning.
- Corrosion and abrasion resisting.
- Operates submerged; can draw feed from deep sump.
- Actuated by air or vacuum or combination of both.

Write for Bulletin No. 309-R

DORR-OLIVER INCORPORATED
Stamford, Connecticut, U. S. A.

For more details circle NED-947 B7 on enclosed inquiry slip

New! TURBO-VAC
KENT-ENGINEERED FOR MORE SERVICE AT LOWER COST

TURBO-VAC costs less to buy . . . handles every cleaning job quickly, from ordinary dry vacuuming and wet pick-up to tough boiler cleanouts.

Powered by 1 H.P. by-pass motor, protected against dust, dirt, water. Volume of 135 cu. ft. of air per min. Removable dust and liquid tank.

- FULL-TIME VACUUM AND BLOWER
- TANK CAPACITIES: ⅔ BU. TO 1⅓ BU. — 5 GALS. TO 10 GALS.
- DOES MORE WORK IN LESS TIME
- CUTS MAINTENANCE COSTS
- HEAD IDEAL FOR USE WITH KENT "DRUM-SEAL"

AVAILABLE IN 4 NEW MODELS

Photo shows new Turbo-Vac Model 75, equipped with foot-operated "autolift," for fast, easy removal of drop-type tank.

Write today for complete details
KENT COMPANY, INC.
449 Canal St.
ROME, N. Y.

KENT

For more details circle NED-948 B7 on enclosed inquiry slip

New Parker HOZE-LOK fittings no skiving...easier to use!

- New re-usable *Hoze-lok* fittings for single- and double-wire braid rubber-covered hose are easy to make up. You don't have to strip off the hose cover . . . you can even assemble most sizes with only a hand wrench.
- Two simple steps: (1) dip end of hose in light grease, such as Parker *Threadlube*, and turn counterclockwise into socket; (2) dip nipple in *Threadlube* and screw into socket and hose.
- *Hoze-lok* holds beyond hose-bursting pressures . . . under severe vibration.
- Ask for NO-SKIVE *Hoze-lok* Catalog 4433.

Parker
Hydraulic and fluid system components

Order from your Parker Distributor — or
Tube & Hose Fittings Division, Section 427-Q, The Parker Appliance Co., 17325 Euclid Ave., Cleveland 12, Ohio

For more details circle NED-949 B7 on enclosed inquiry slip

For more details circle NED-950 B7 on enclosed inquiry slip

MODEL 50
HAGEN
SYNCHRONOUS MOTOR

most POWERFUL for its size

Laminated rotor of the Model 50 Hagen Motor develops 10 ounce inches torque at 4 RPM. Motor is ideal for applications requiring from 5 to 10 times the power of "clock" motors. For timers, chart drives, displays, instruments, etc. Yet in spite of its power, the motor's largest dimension is 3-3/32". Output speeds 1800 to 1/6th RPM — 25, 50 or 60 cycle. Other models available. Send for Bulletin No. 1055. Address Dept. NED-257

HAGEN MANUFACTURING COMPANY, INC.
Moline, Illinois
Baraboo, Wisconsin
Subsidiary of Eagle Signal Corporation
For more details circle NED-951 B7 on enclosed inquiry slip

AGASTAT

Compact... Dust-Proof
TIME DELAY RELAYS
solenoid actuated—pneumatically timed

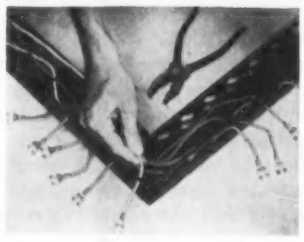
Introduces time delays into a-c or d-c circuits. Easily adjusted to provide delays ranging from 0.1 second to five or more minutes.

The AGASTAT is small, light, and operates in any position. Dust-proof timing chamber assures long operating life with a minimum of maintenance.

AGA DIVISION
Address Dept. A15-25
Elastic Stop Nut Corporation of America
1027 Newark Avenue, Elizabeth, New Jersey
For more details circle NED-952 B7 on enclosed inquiry slip

New Processes & Materials

WIRING CHANNEL RACEWAY
in 1 x 1 to 4 x 4-in. sizes



Quick wiring of electrical and electronic equipment with pre-cut wires already equipped with solderless connectors is facilitated by new design of Panel Channel raceways. Design provides slots, instead of holes, so that terminals can be readily passed through. Arrangement of the wire slots allows wiring to leave channel on the same plane as the destination terminal. Phenolic used in construction is unaffected by normal high temperatures encountered in control panels. Sizes from 1 x 1 to 4 x 4 in. are available from stock. Made by **Stahlin Brothers, Inc.**, 451 Maple St., Belding, Mich.

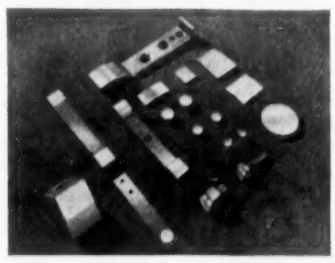
For more details circle NED-953 B7 on enclosed inquiry slip

WETTING AGENT
also is emulsifier and penetrant

Availability in liquid form facilitates handling of Monawet MO-70% di-octyl sodium sulfosuccinate wetting agent. Rapid-acting material can also be used as emulsifier, penetrant, dispersing agent and plasticizer in textile, paper, leather, rubber, paint, chemical and other fields. Made by **Mona Industries, Inc.**, Chemical Div., Dept. NED, 65 E. 23rd St., Paterson 4, N. J.

For more details circle NED-954 B7 on enclosed inquiry slip

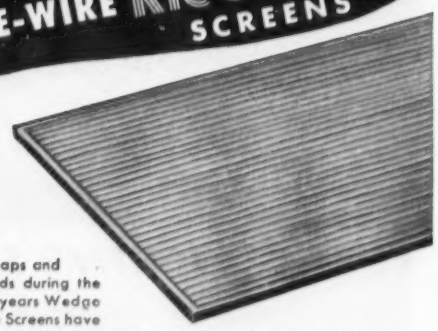
ELECTRICAL CONTACTS
handle high current without welding



Containing silver and cadmium oxide, Gibsiloy KA-2, KA-3, KB-2 and KB-3 electrical contacts withstand heavier currents than do silver and its alloys without sticking or welding. They have good arc-quenching, low contact resistance, high conductivity and low material loss characteristics. KA sintered powder-metal materials are supplied in disks, rectangles and irregular shapes in sizes up to 1 in. thick and 8 in. square. KB contacts are offered as rivets beaded from wire, rectangles cut from stock, projection-weld-back disks and as disks with or without silver or solder backing. Made by **Gibson Electric Co.**, 8357 Frankstown Ave., Pittsburgh 21, Pa.

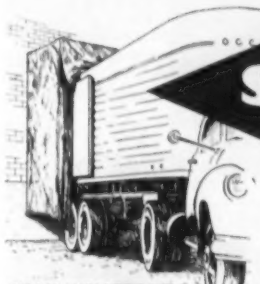
For more details circle NED-955 B7 on enclosed inquiry slip

This is
ANOTHER BIG YEAR
FOR WEDGE-WIRE Kleenslot SCREENS



By leaps and bounds during the past years Wedge Wire Screens have been growing in popularity and to all appearances our output in the market for our product will be greater than ever before. Wedge Wire KLEENSLOT Screens are precision made on a non-blinding, non-clogging principle and can be furnished in practically any type metal including aluminum to absolute positiveness of dimension in opening. Prompt estimates are gladly furnished by our Engineering Department. Write today, don't delay!

Wedge-Wire CORPORATION
GAS STREET AT NICKLE PLATE R. R., WELLINGTON, OHIO
For more details circle NED-956 B7 on enclosed inquiry slip



FOR SAFER DOCKS...
...PROTECT THEM FROM RAIN, SNOW AND ICE with
FROMMELT TRUCK OR RAIL
CAR-DOX

CAR-DOX UNITS EXTEND AUTOMATICALLY TO ENCLOSE END OF TRUCK. FRONT CURTAINS (TOP AND SIDE) ADJUST QUICKLY TO PROVIDE FULL PROTECTION.

Practical Efficient Effective

UNIT RETRACTS EASILY AND COMPACTLY... AND IS READILY SECURED CLOSE TO FRAME.

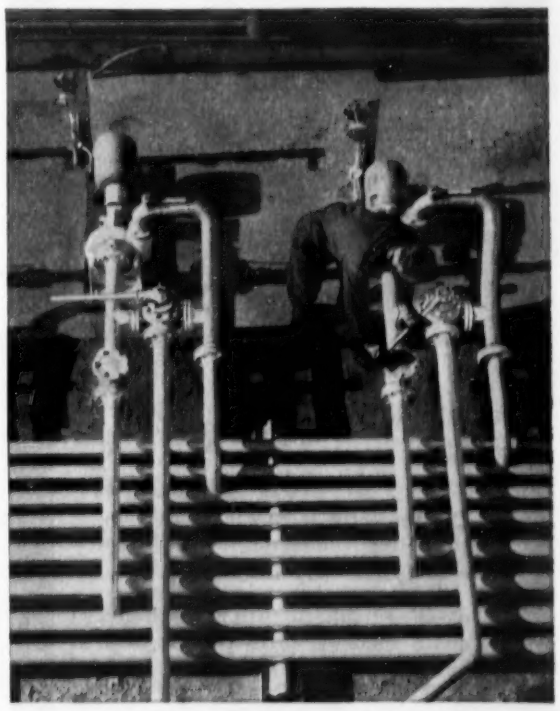
RETRACTABLE ALL-WEATHER DOCK PROTECTORS

CONSTRUCTED OF TOUGH, DURABLE FABRIC (HIGHLY RESISTANT TO WEAR, WATER, MILDEW AND FIRE) FITTED OVER HEAVY GAUGE STEEL RETRACTABLE FRAMES—CAN BE POSITIONED (EXTENDED OR RETRACTED) BY ONE MAN IN A MATTER OF MINUTES.

SPEEDS LOADING and UNLOADING in INCLEMENT WEATHER.
REDUCES ACCIDENT FACTORS.
PROTECTS MERCHANDISE from LOSS or DAMAGE by WEATHER.

MEETS REQUIREMENTS OF U.S. DEPT. OF AGRICULTURE, UL APPROVED

For detailed information and prices write FROMMELT Industries BOX 165 · DUBUQUE, IOWA
· FABRICATORS OF APPROVED SAFETY PRODUCTS ·
For more details circle NED-957 B7 on enclosed inquiry slip



3-WAY FLOW CONTROL
at the cost of only 1 valve!

One ROCKWELL-Nordstrom Multiport Valve Eliminates 3 or 4 Ordinary Valves

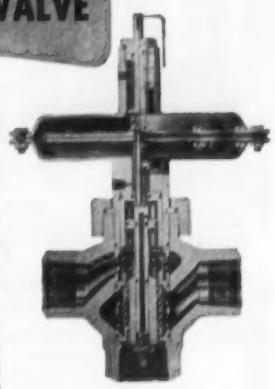
Imagine how complicated . . . and costly . . . the installation above would be if separate by-passes and valves were needed for each line. But with Rockwell-Nordstrom Multiport valves, these complex switching operations become simple, foolproof and economical. The drawings below (just three of many combinations), show why one Multiport can replace three or four ordinary valves.

In addition to original installation savings, Multiport valves *continue* to save you money because they're ruggedly built to stay efficient. *Pressurized lubricant* which forms a positive, leakproof seal, also prevents friction wear for longer life at lower cost.

Rockwell-Nordstrom Multiport valves (and the *complete* line of Straightway valves) are available in semi-steel, steel, stainless steel, bronze and other corrosion resisting metals. Write for complete details: Rockwell Manufacturing Company, Pittsburgh 8, Pa. *Canadian Valve Licensee:* Peacock Brothers Limited.

ROCKWELL-Nordstrom VALVES
LUBRICANT SEALED FOR POSITIVE SHUT-OFF
For more details circle NED-958 B7 on enclosed inquiry slip

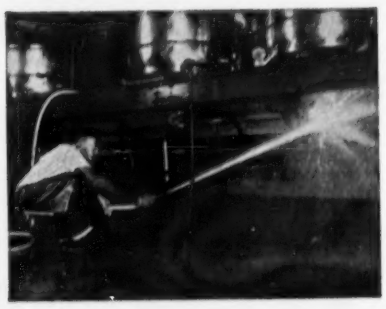
THREE-WAY THREE-POSITION CONTROL VALVE



Here's the solution to many of your flow control problems. Designed especially for service as a manifold valve in automatic systems, the GOT Type "CPC" Valve is extremely simple in design and construction, with all parts accessible for cleaning, repair or replacement without removing the valve body from the line. The inner valve is pressure-balanced for positive operation, and gives guaranteed bubble-tight closure against gas or liquids. The GOT-developed "huddling chamber" design protects valve seat and disk against cutting, and permits re-sizing without seat and disk replacement. For complete information, write for Catalog No. 256 MVC.

Garrett Oil Tools, Inc.
P. O. BOX 2427 • LONGVIEW, TEXAS
DIVISION OF U. S. INDUSTRIES, INC

For more details circle NED-959 B7 on enclosed inquiry slip

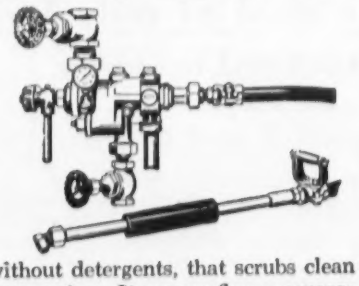


ELIMINATE DIRTY WORK

Until recently, there was no real substitute for hand scrubbing on tough cleanup jobs. Nobody liked it.

Now, scrubbing action can be provided hydraulically. It's better, faster and a thousand times cheaper than any hand method.

The Sellers Hydraulic Jet Cleaner uses only cold water and steam (as low as 5 psi.). It delivers a high temperature, high impact jet, with or



without detergents, that scrubs clean any surface. It sweeps floors, conveyors, processing machinery free of all types of foreign matter . . . cleans hard-to-reach spots without dismantling equipment.

There's no comparable cleaning action provided by any cleaning device, no matter what cost. The Sellers Hydraulic Jet is easily installed . . . simple to operate.

GET THE FACTS . . . *send for Bulletin 424.*

SELLERS *Injector* CORPORATION

1605 Hamilton Street, Philadelphia 30, Pa. • Since 1848

For more details circle NED-960 B7 on enclosed inquiry slip

New Literature & Catalogs

Mercury Switch Equipped Controls

Mercoid Corp.—Automatic controls for heating, ventilating, air conditioning and industrial equipment and applications are subject of 56-page illustrated catalog No. 857. Controls use sealed mercury switches for long life, wearproof, silent operation. Types are available for pressure, temperature, differential, limit, liquid level and other control functions. Also described are related controls which include relays, thermostats, damper motors, and tilting and magnet operated mercury switches.

For more details circle NED-961 B7 on enclosed inquiry slip

Detachable Hub Sheaves

Fort Worth Steel & Machinery Co.—Listed in 16-page illustrated catalog section 83-A are specifications on 739 stock sizes of detachable hub type QD sheaves. They range in diameter from 3.4 in. to 6 ft. Sheaves are available for A and B, C and D-section V-belts.

For more details circle NED-962 B7 on enclosed inquiry slip

Screw Machine Products

Allmetal Screw Products Co.—Three-color illustrated file folder depicts and describes typical screw machine work performed by this company on a contract basis. Fabrication operations and techniques required for each of eight items are covered.

For more details circle NED-963 B7 on enclosed inquiry slip

Photo-Reproduction Materials for Drawings

Grant Photo Products, Inc. — Silver-sensitized papers, vellums, films and tracing cloths for making negatives and prints as well as positive-to-positive prints are detailed in 16-page illustrated catalog K. Eight new products for photographic reproduction of line drawings are announced. Included is guidance in the proper selection and use of these materials as well as complete processing directions.

For more details circle NED-964 B7 on enclosed inquiry slip

Industrial Trucks & Trailers

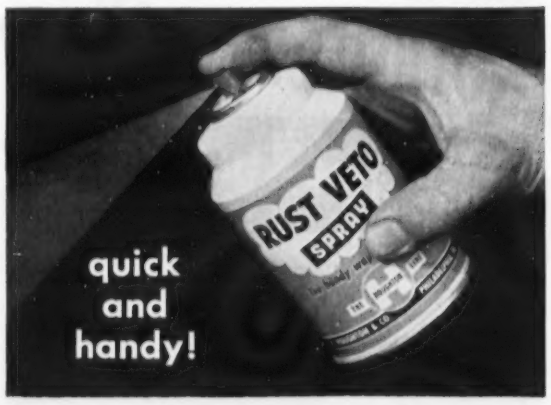
Ohio Galvanizing & Mfg. Co.—Solid and pneumatic tired industrial trucks and trailers with capacities ranging to 16,000 lb are described in 12-page catalog No. 357. Types and sizes are available for standard and special materials handling operations.

For more details circle NED-965 B7 on enclosed inquiry slip

Die Sets & Accessories

Rectangular progressive rear pin die sets, watchmaker and Multi-Slide die sets, Fourslide and dieing machine, removable bronze bushings and line of chrome-vanadium steel die springs are among new items described in illustrated 76-page die sets and accessories catalog No. 11. Sections on using and selecting die springs and saving on steel specials are included. Technical section and price book are bound for simultaneous reading. Available only by request on company letterhead from Producto Machine Co., 990 Housatonic Ave., Bridgeport 1, Conn.

For more details circle NED-966 B7 on enclosed inquiry slip



RUST PREVENTIVE SPRAY

Perfect for tools, jigs, dies and idle machines. Clear, dry film positively seals moisture out. Clean and easy to use.

Price $15.24 per case (1 doz. 12 oz. cans) f.o.b. Philadelphia, Pa. Clip this advertisement to your letter or purchase order and mail to E. F. Houghton & Co., 303 West Lehigh Avenue, Philadelphia 33, Penna.

RUST-VETO SPRAY
. . . a product of
E. F. HOUGHTON & CO.
PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO
Ready to give you on-the-job service . . .

For more details circle NED-967 B7 on enclosed inquiry slip

THE SHAPE OF THINGS IN MOLDED SILICONE

MOLDED SILICONE SEAL KEEPS TAP WATER UNDER CONTROL

When this funnel seal for a steam and dry iron was originally designed, Silicone rubber compounds with low shrinkage characteristics were not available.

Two problems were presented to the Acushnet laboratory chemists and tool designers. First, a compound must be produced that would have excellent resistance to all types of tap water and retain its sealing properties even if the iron were inadvertently run dry. Second, the tooling must be matched to the characteristics of the compound.

This was successfully accomplished through the use of a compound with a specific shrinkage rate of 5% around which tooling was finally constructed. The Silicone part now contributes to the safety and longer service-free life of the appliance.

What's Your Shape?
Send for Acushnet "Silicone Rubber Brochure."

Acushnet ACUSHNET PROCESS COMPANY
NEW BEDFORD MASSACHUSETTS

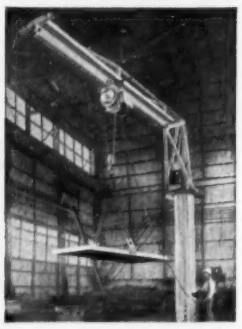
. . . *Precision Molded* RUBBER, SILICONES - "APCOTITE" BONDING

Address all communications to 782 Belleville Ave., New Bedford, Mass.

For more details circle NED-968 B7 on enclosed inquiry slip

NOW! Electric Power for Moving **BIG LIFTS**

UP-DOWN- and AROUND



Get Full Circle Precision Control with **LeTOURNEAU** Electric Hoists and **POWER-ROTATED JIB CRANES**

Here is three dimensional, fraction-of-an-inch control of 6 to 15-ton loads. Smooth starts and stops under full load with rotation either way at one-half rpm or less . . . and capacity load suspended anywhere on the 25' boom! All-welded steel construction.

Optionally equipped with the LeTourneau Electric Hoist matched to *your* job requirements. Dual braking system: Positive, mechanical brakes stop and hold capacity loads; regenerative electric braking automatically controls lowering speed. Each safely controls 1½ times rated load.

LeTourneau AC motors power hoist, rotate boom, and operate trolley. These motors sustain temporary low voltages without damage. They are instant reversing, varying speed type, either single speed or two-speed control.

Write today for literature

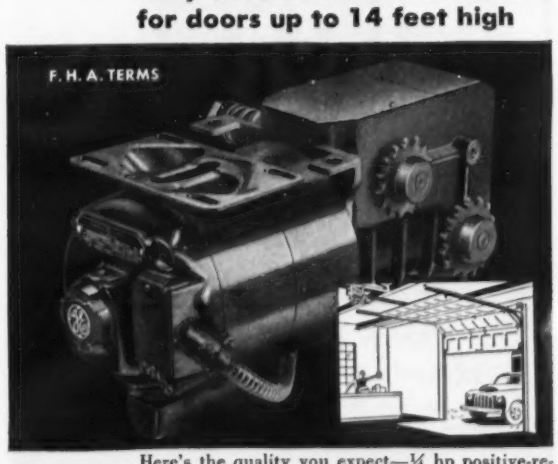
R. G. LeTOURNEAU INC
2562 South MacArthur, Longview, Texas - Industrial Equipment Division F-118

For more details circle NED-969 B7 on enclosed inquiry slip

BARBER COLMAN

Barcol®
Door Operators

Only $255 for this new Model L for doors up to 14 feet high



Here's the quality you expect—¼ hp positive-reversing motor, safety engineered with adjustable slip clutch, thermal overload and ball-bearing chain drive. In case of power failure, a handy clip release unlocks the door for manual operation. Save heat dollars, save time dollars—ask your local "Barcol" distributor (listed under "Doors" in telephone directory) or write. F. O. B. Rockford.

BARBER-COLMAN COMPANY, DEPT. 572, ROCKFORD, ILLINOIS

For more details circle NED-970 B7 on enclosed inquiry slip

When you've got to see what's going on inside use PYREX® sight glasses

PYREX brand sight glasses are designed for both low and high pressure service at high temperature. They are corrosion resistant when used in ovens, kettles, furnaces, pressure vessels, stills, evaporators, absorption kettles, processing tanks.

They're available in a wide range of sizes, for pressures from 3 to 300 lbs.

Bulletin EB-20 will give you the details, including recommended mountings. We'll be glad to send you a copy.

CORNING GLASS WORKS
56-2 Crystal Street, Corning, N.Y.
Corning means research in Glass

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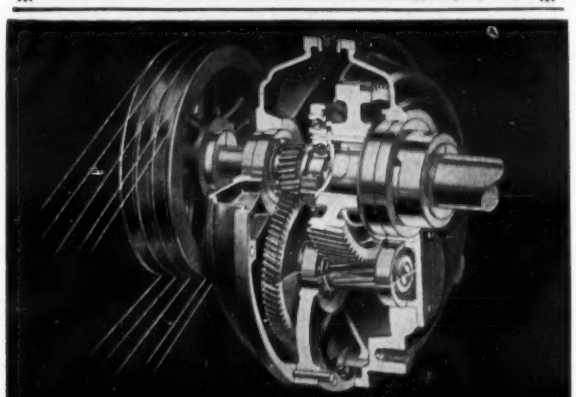


Here's why AMERICAN SHAFT-KING is the pace setter among speed reducers

- **THEY'RE Versatile**—built for use with motors of any make, any type, any age.
- **Easily Installed**—no special shafts or shaft extensions needed. Also come with exclusive tapered hub construction.
- **Made in two ratios**—13:1 and 20:1—for speeds from 5 to 154 R.P.M. and seven sizes from ¼ to 42 H.P.
- **Equal efficiency** on either horizontal or vertical mountings.
- **Precision-Built**—Shaft-Kings are built from components made on equipment chosen solely for this purpose, using techniques unsurpassed anywhere . . . comply with A.G.M.A. standards throughout.
- **Shaft-Mounted**—no special supports or foundations needed; space is saved.
- **Proven Performance**—over 100,000 American Speed-Reduction Drives are in use in every industry, in thousands of companies, large and small, throughout the world.
- **Immediately Available**—from distributor stocks everywhere.

In other words, American Shaft-King gives you
POWER AT THE SPEED YOU NEED
Write today for complete catalog including selection tables.

The American Pulley Company
POWER-TRANSMISSION DIVISION
4294 Wissahickon Ave. • Phila. 29, Pa.

▲ For more details circle NED-972 B7 on enclosed inquiry slip ▲

New Processes & Materials

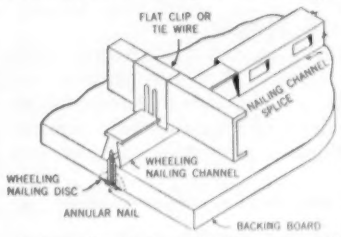
METAL-TONE DECALS adhere to all types of surfaces

Vivid, permanent marking as well as an attractive chrome-plate effect is provided by Lustre-Cal metal-tone decals. These pressure-sensitive decals adhere to all types of material and surfaces. Practically any size and shape may be furnished, and colors are unlimited. Embossing and debossing of areas on the decal is feasible. Made by **American Decalcomania Co.**, Dept. ND, 4344 Fifth Ave., Chicago 24, Ill.

▲ For more details circle NED-973 B7 on enclosed inquiry slip ▲

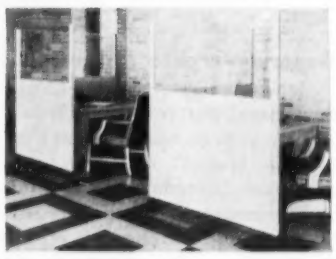
SUSPENSION SYSTEMS for hanging acoustical ceilings

Three noncombustible suspension systems have been introduced for hanging mineral, fiber, or metal acoustical tiles. Nailing Channel system (illustrated) requires backing and can be used with most types of acoustical tiles. In the H and T system, unbacked tiles are fastened directly to suspension bars. The Snap-in, Tee Bar system is designed for use with metal ceiling pan units. Offered by **Wheeling Corrugating Co.**, Wheeling, W. Va.



▲ For more details circle NED-974 B7 on enclosed inquiry slip ▲

OFFICE PARTITIONS in various sizes assure privacy

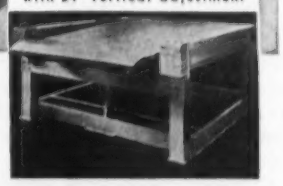


Sound-retarding core of acoustical spun glass, flush surfaces and baked enamel finish in standard colors are features of Budgex office partitions. Heights available are 42 in. flush and 42 in. flush plus 12 and 24-in. glass. Various lengths are offered. Any partition can be sawed off on the job to form a desired length. They are easily installed with a screwdriver. Made by **GR Products, Inc.**, Dept. D, 2417 Eastern Ave., Grand Rapids, Mich.

▲ For more details circle NED-975 B7 on enclosed inquiry slip ▲

Now...Two NEW Low-Cost Packaged ROWE Adjust-A-Docks

Model MFL 20,000-lb. capacity, 6' wide, 8'8" long, front to back with 24" vertical adjustment



. . . That Cost Less To Install And Maintain

■ Now it is possible to obtain the cost-saving benefits from permanent hydraulic dock leveling devices without costly installation charges. These new Rowe models, with capacities of 10,000 and 20,000 lbs., are completely assembled ready for placement in front of an existing dock.

A Few Outstanding Features
- **Floating action**
- **Rugged construction**
- **Push button control**
- **Complete self-contained hydraulic power unit**

See it demonstrated in Booth 301 Materials Handling Convention, Cleveland
84 Models To Meet Your Requirements

ROWE METHODS, INC.
2534-I Detroit Avenue • Cleveland 13, Ohio

▲ For more details circle NED-976 B7 on enclosed inquiry slip ▲

BANISH DUST DESTRUCTION
BREATHE CLEANER AIR
WITH
Hammond DUSKOLECTORS

Collect dust and dirt before it becomes destructive, and –
- Provide healthier working conditions
- Protect costly machines
- Reduce maintenance costs

Cleaner air is one of your best investments. Our DusKolectors Don't Cost – **They Pay.**

Clip this ad to your letterhead – Literature and interesting installation information will be sent at once

A MUST FOR DUST!

Hammond Machinery Builders INC.
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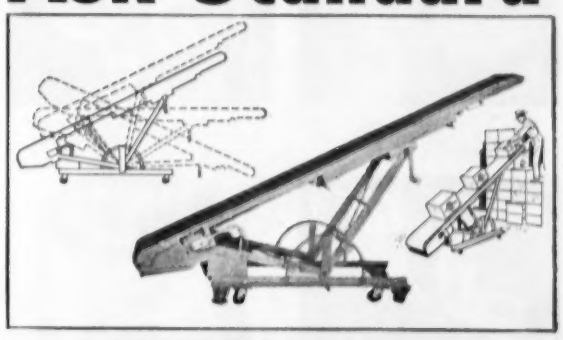
Hammond OF KALAMAZOO "GOOD MACHINERY SINCE '82"
See Us at Booth 165 Western Metal Show Los Angeles—March 25-29.

▲ For more details circle NED-977 B7 on enclosed inquiry slip ▲

Ask Standard



how HANDIBELT cuts costs in storage and shipping rooms

Lightweight, portable HANDIBELT conveyors move bags, cartons, boxes horizontally or at a variety of inclined or declined angles. Available with power feed section. For details, contact the Standard engineer listed in your phone book or write STANDARD CONVEYOR COMPANY, General Offices: North St. Paul 9, Minn. Sales and Service in Principal Cities. Ask for Bulletin 63-E. Address: Dept. K-2.

50 years of conveyor quality

Standard GRAVITY & POWER CONVEYORS

▲ For more details circle NED-978 B7 on enclosed inquiry slip ▲

Aircon VAPOR DEGREASERS

ANY SIZE . . .
Standard or Custom

Aircon Vapor Degreasing Systems are available in a complete line, ranging in size, from the smaller bench and barrel-type units to the larger, permanent, high capacity degreasers.

Aircon Degreasers are:
- GAS, ELECTRIC OR STEAM HEATED
- COMPLETE UNITS WITH ALL SAFETY EQUIPMENT

NO EXTRAS TO BUY!

Write today for full information

WE ARE DESIGNERS AND ENGINEERS OF SPECIAL DEGREASING EQUIPMENT. CONSULT US ON YOUR DEGREASING PROBLEMS.

Armstrong & White
CHESWICK, PENNSYLVANIA

▲ For more details circle NED-979 B7 on enclosed inquiry slip ▲

FASCINATING!

HOSE COMES TO LIFE WITH

PUNCH-LOK HOSE CLAMPS

"A simple operation and Punch-Lok puts your hose in use again," say Doc Punch and Mr. Lok. For complete product and price information, see your near-by Punch-Lok distributor, or write direct.

"The Sign of a GOOD Hose Clamp"

PUNCH-LOK Company Dept. A, 321 N. Justine St., Chicago 7, Ill.

6200

For more details circle NED-984 B7 on enclosed inquiry slip

"Been using Kester Solder for almost half a century, Tom. It's always fast and economical."

"When it comes to rigid alloy quality control, George, you have to hand it to Kester Solder."

"The Technical and Engineering Service at Kester is a great help in licking production problems, Bob."

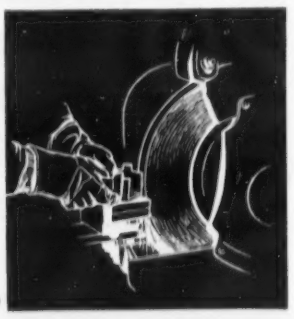
SEND FOR "Solder . . . Its Fundamentals and Usage," the 78 page Kester textbook. It's free.

KESTER SOLDER

COMPANY 4249 Wrightwood Ave., Chicago 39, Ill.
Newark 5, N. J. • Brantford, Canada

For more details circle NED-985 B7 on enclosed inquiry slip

Your general purpose grinding



gets the profit-boosting "TOUCH of GOLD" from Norton general purpose wheels

Norton builds grinding wheels — in every required abrasive and bond — that save you the most time and money in general purpose grinding. In particular, 44 ALUNDUM* abrasive is the new Norton development that's tops among all non-premium priced aluminum oxide abrasives.

See your Norton Distributor for prompt deliveries on the wheels you want. And ask him for the latest Norton wheel catalog — full of facts and prices. Or write to the nearest district office of NORTON COMPANY, Worcester 6, Mass. Distributors in all industrial areas. *Export:* Norton Behr-Manning Overseas Incorporated, Worcester 6, Mass.

W-1755

NORTON ABRASIVES Making better products... to make your products better

NORTON PRODUCTS: Abrasives • Grinding Wheels • Grinding Machines • Refractories
BEHR-MANNING PRODUCTS: Coated Abrasives • Sharpening Stones • Behr-cat Tapes

*Trade-Mark Reg. U. S. Pat. Off. and Foreign Countries

For more details circle NED-986 B7 on enclosed inquiry slip

New Literature & Catalogs

Closed Circuit Television

General Precision Laboratory Inc.—GPL ii-TV closed circuit television system for any task requiring instantaneous visual communication, observation, magnification, instruction and control is described briefly in 4-page brochure.

For more details circle NED-987 B7 on enclosed inquiry slip

Condenser Type Bushings

Lapp Insulator Co.—Series of POC (paper-oil condenser type) totally enclosed bushings of moisture-proof design is subject of 12-page illustrated bulletin 508. They have 15 to 69 kv ratings. Design features, specifications and ratings are covered.

For more details circle NED-988 B7 on enclosed inquiry slip

Standard Bearing Casters

Gleason Corp.—Over 40 new models of standard casters for general, commercial, institutional and industrial use are listed in 4-page catalog No. 412-A along with their specific uses in 30 separate industries. Company makes complete line of medium and light duty casters, as well as solid rubber, semipneumatic and full-pneumatic wheels.

For more details circle NED-989 B7 on enclosed inquiry slip

Acrylic Rods, Tubes & Shapes

Ace Plastic Co.—The wide range of Acrylic rods, tubes and shapes, including half rounds, squares and twists, carried in stock is illustrated in 4-page folder. Products made of Lucite and Plexiglas have unusual optical properties. Physical properties and test data are tabulated.

For more details circle NED-990 B7 on enclosed inquiry slip

Slotted Angle Construction

Flexangle Corp. — Application of the Universal Slotted Angle System in constructing stock racks, production benches, carts, pallet racks, maintenance platforms, temporary partitions, ladders, conveyor frames and switchgear racks are described in 4-page folder. Slotted steel angles, fittings and fasteners are reusable and afford easy storage.

For more details circle NED-991 B7 on enclosed inquiry slip

General Purpose Controls Manual

General Electric Co.—32-page manual GEA-6372 on general purpose controls explains what each product is, how it works, what's available and where to use it: Manual, magnetic and reduced-voltage starters; push buttons; relays; limit switches; solenoids; and pressure and vacuum, float, and plugging and antiplugging switches are covered.

For more details circle NED-992 B7 on enclosed inquiry slip

Engineering Templates

Alvin & Co.—All types of acrylic plastic templates for engineers, architects, designers, artists, navigators, surveyors and students are displayed in template catalog. These drafting aids are shatterproof and transparent.

For more details circle NED-993 B7 on enclosed inquiry slip

Stud Welding Standards

K S M Products, Inc., Stud Welding Div.—36-page booklet G-102 presents industry standards in arc welding studs, pins and tapped pads. Index and reference to equipment and accessories used in stud welding are provided. Details cover mechanical properties, chemistry, thread sizes, plating and annealing information.

For more details circle NED-994 B7 on enclosed inquiry slip

Adjustable Speed Fluid Drives

American Blower Corp., Hydraulic Coupling Div. —Type VS adjustable speed Gyrol fluid drives in the 7½ to 800 hp range are subject of illustrated 8-page bulletin A-119. Advantages of these units include speed control, no-load starting, torque limiting, acceleration control, shock absorption, quiet operation and simplified installation. Cut-away view shows operating principle.

For more details circle NED-995 B7 on enclosed inquiry slip

Rolling Mills & Auxiliary Equipment

Waterbury Farrel Foundry & Machine Co.—36-page catalog R compiles specifications and details of complete line of rolling mills and rolling mill auxiliary equipment for ferrous and nonferrous metal. Described are strip, rod and special mills; gang slitters; and chain draw benches. Reference tables give strip coil weights. Also included are length calculating graphs and tandem rod mill rolling schedules.

For more details circle NED-996 B7 on enclosed inquiry slip

What's New

Binks Style "E" Dynaprecipitor Water Wash Spray Booth

Removable manifold. Entire manifold removes in seconds—without tools!

Hinged water curtain. Swings up for easy skimming of entire collecting pan.

Complete water circulation. No dead ends to accumulate sediment.

For complete information ask your Binks industrial distributor for Bulletin DUE or write direct to the address below.

7098

Binks EVERYTHING FOR SPRAY PAINTING

Binks Manufacturing Co.
3122-34 West Carroll Avenue
Chicago 12, Illinois

REPRESENTATIVES IN PRINCIPAL U. S. & CANADIAN CITIES • SEE YOUR CLASSIFIED DIRECTORY

For more details circle NED-997 B7 on enclosed inquiry slip

Cut Fast and Cool!

S. S. WHITE CARBIDE BURRS cut *fast* to reduce your operating time. They cut *cool*. Burr heads are made of tungsten carbide . . . necks and heads of steel. They will give you long, economical use.

S. S. WHITE CARBIDE BURRS are available in a wide range of sizes and shapes. Write for Catalog T-55.

THE S.S.White INDUSTRIAL DIVISION
10 East 40th St. New York 16, New York (DB)

For more details circle NED-998 B7 on enclosed inquiry slip

specify standard

HALLOWELL®

UNIT WORK BENCHES

HALLOWELL FEATURES

2 lengths, 4 widths, 2 heights—all standard

4 top materials—steel, Presdwood on steel, ShopTop, laminated wood

Plenty of drawer and cabinet space, functional design

Use them as individual units or as continuous benches of any length

Standard units with *standard* accessories permit you to *custom build* Hallowell Unit Work Benches to fit your requirements. Stocked by leading shop equipment dealers. Write for literature. STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

STANDARD PRESSED STEEL CO.
HALLOWELL SHOP EQUIPMENT DIVISION SPS
JENKINTOWN PENNSYLVANIA

For more details circle NED-999 B7 on enclosed inquiry slip

SHELDON

It's Just Good Sense to Use Sheldon Lathes

Closer Tolerances. Sheldon Lathes work to closer tolerances . . . have accuracy guaranteed by the individual check sheet which accompanies each lathe and proves that that lathe has passed Sheldon's 19 accuracy tests. Continued accuracy is insured by hand scraping the headstock, carriage and tailstock to the ways; by using "Zero Precision" tapered roller spindle bearings, etc.

Extra Work Capacity. Sheldon 10", 11" and 13" Lathes have large 1" collet capacity, a 1⅜" hole through the spindle, 54 pitch gear boxes, large motors, cogged V-belts to spindle, etc. etc., and come in a choice of pedestal, cabinet or bench mountings.

Production Versatility. Sheldon Lathes are easily converted to ideal, high speed, production lathes with the addition of bed turrets, taper attachments and other production accessories.

Profitable. Sheldon Lathes are the right size for most toolroom and production jobs. Low in initial cost, they are inexpensive to operate and are profitable to use. It's just good business to be equipped with Sheldon Lathes.

Write for Catalog

SHELDON MACHINE CO., Inc.
4215 N. Knox Avenue, Chicago 41, Illinois

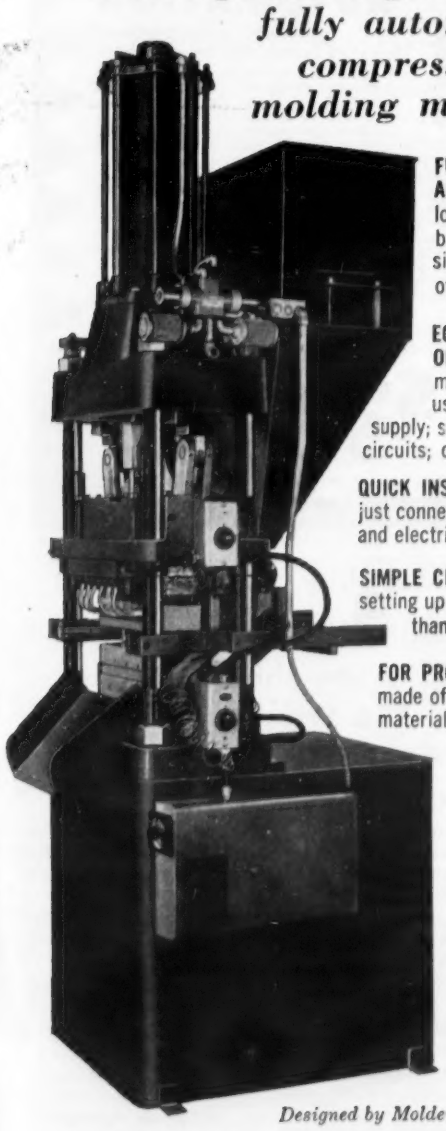
▲ For more details circle **NED-1000 B7** on enclosed inquiry slip ▲

AUTOMOLD

NEW!
THE A50-B
AUTOMOLD

50 tons at 100 lbs. air pressure
60 tons at 120 lbs. air pressure

lowest priced high-speed fully automatic compression molding machine



FULLY AUTOMATIC, lowest cost, because of simplicity of design.

ECONOMICAL OPERATION and maintenance — uses existing air supply; simple electrical circuits; compact molds.

QUICK INSTALLATION — just connect to air supply and electrical power.

SIMPLE CHANGE-OVER — setting up molds in less than two hours.

FOR PRODUCTS made of thermosetting materials, including alkyds —

Appliance Parts, Automobile Accessories, Electrical, Electronic and Aircraft Components, etc.

Designed by Molders for Molders

Our staff of engineers will assist you with your mold design. Automold delivers a "working package". Your mold will be checked, installed, and test-run in your press.

Write for brochure and prices to . . .
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▲ For more details circle **NED-1001 B7** on enclosed inquiry slip ▲

New Processes & Materials

BRASS & BRONZE ingots have controlled properties

Brass and bronze ingot bars, produced of metals with rigidly controlled properties, are uniform in weight and size and can be varied at will. Standardization of properties, size and weight simplifies piling, palletizing and storing, facilitates inventory control and minimizes accidents resulting from handling. Furnace charges are easily prepared. Made by **I. Schumann & Co.,** Dept. NED, 4391 Bradley Rd., Cleveland 9, O.

▲ For more details circle **NED-1002 B7** on enclosed inquiry slip ▲

TARPAULIN MATERIAL abrasion resistance improved

Improved Fairprene 5787 tarpaulin material affords better abrasion resistance than former Du Pont neoprene-coated nylon fabric materials. New material features coating of Hypalon synthetic rubber on the underside for high resistance to wear inflicted by rubbing against cargo or vehicle. Exterior surface is coated with black neoprene. Water absorption is virtually zero. Material is also rot and mildew-resistant, and can be stored wet without damage. It remains pliable in subfreezing temperatures. Fairprene 5787 weighs 15 oz per sq yd and is offered in 42, 54 and 72-in. widths. Made by **E. I. du Pont de Nemours & Co.,** Fabrics Div., Dept. NED, Wilmington 98, Del.

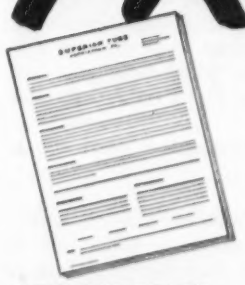
▲ For more details circle **NED-1003 B7** on enclosed inquiry slip ▲

DECORATIVE-PROTECTIVE COATING applied by brush or spray on metals

Organosol formulation based on Pliovic AO vinyl dispersion resin has good viscosity and dispersion stability for metal applications. With the incorporation of chemically stable pigments, coatings are decorative as well as protective. Application can be by brush or spray, the latter requiring dilution with a mixture of mineral spirits and di-isobutyl ketone. Formulation can also be changed for other application techniques, enabling the user to take advantage of the low plasticizer content to produce a hard coating with good chemical resistance and a minimum of tack. Vinyl resin renders coating resistant to many acids, bases, metallic salts, moisture and corrosive fumes. Made by **Goodyear Tire & Rubber Co.,** Chemical Div., 1144 E. Market St., Akron 16, O.

▲ For more details circle **NED-1004 B7** on enclosed inquiry slip ▲

FREE



NEW SUPERIOR BULLETIN LISTS 121 DIFFERENT TUBING ANALYSES

Write for a copy today—ask for Data Memorandum No. 1. Discover how Superior can be your one source of supply for small tubing needs. The Data Memo lists and describes 63 standard and 58 special analyses from which you can choose. Standard analyses are regularly carried in inventory. Special analyses are procured against customer orders. Tubing is produced in the seamless and Weldrawn® forms. In *every* case, you are sure of a premium quality product, made by the latest techniques under rigid quality controls.

The analyses include stainless, carbon and alloy steel, nickel and nickel alloys, copper and copper base alloys, glass sealing alloys, reactive metals and nickel cathode materials. Write for this list of the greatest variety of materials offered by any maker of small-diameter tubing. Ask for Data Memorandum No. 1.

FOR YOUR FREE COPY OF DATA MEMORANDUM No. 1, WRITE TO

Superior Tube
The big name in small tubing
2018 Germantown Ave.
NORRISTOWN, PA.

All analyses .010 in. to ⅛ in. OD—certain analyses in light walls up to 2½ in. OD

▲ For more details circle **NED-1005 B7** on enclosed inquiry slip ▲

What's new at Towmotor?

The industry's most significant advances in fork lift truck design and performance are shown in Towmotor's Bulletin SP23. Write for copy describing new features like these.

- Fatigue-Free Adjustable Seating
- Motion-Saving "Centralized Control"
- Maximum Free Lift that tops all
- No-Loss Hydraulic Lift Action
- Power Steering that saves 80% of driving effort

TOWMOTOR
THE ONE-MAN BAND

TOWMOTOR CORPORATION
Cleveland 10, Ohio

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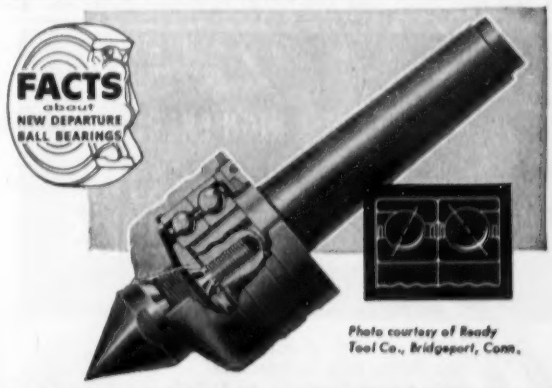

Photo courtesy of Ready Tool Co., Bridgeport, Conn.

PRELOADED BALL BEARINGS HELP CENTER MAKERS GUARANTEE ACCURACY TO WITHIN .000050"!

Accuracy . . . to within less than .000050" total indicator runout! Such super accuracy of work stems from the ability of preloaded duplex ball bearings to handle combination loads with minimum deflection. In live center applications, New Departure ball bearings with medium and high contact angles are mounted duplex and positively clamped together to assure the correct predetermined preload condition. As work expansion increases the thrust load, radial centering becomes more rigid and accuracy is precisely maintained. Write for further details.

NEW DEPARTURE
DIVISION OF GENERAL MOTORS BRISTOL, CONN.

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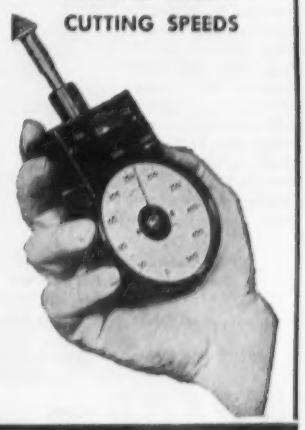
SMITHS TACHOMETERS

For Precise and Rapid Measurements of

- **Magnetic Design** Steady readings accurate to ±0.5% at any part of any scale.
- **Instantaneous Reading** No timing or waiting.
- **Self-Powered** Needs no battery. Always ready for immediate use at full accuracy.
- **Nine Ranges** To 50,000 rpm on highest. Interpolate tenths of rpm on lowest.
- **Overspeed Protection** Inherent and built-in.
- **Hold Button** "memorizes" reading when desired.

SHAFT SPEEDS
SURFACE SPEEDS
CUTTING SPEEDS



Complete Service Facilities *Send for Details and Literature*

CLARENCE J. MARX CO.
Box 4033, Cleveland 23, Ohio

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MAKE YOUR OWN CRANE...

...at a NEW LOW COST!

Handle loads up to 2000 lbs., SAFELY,

easily... Buy crane beam locally—we furnish the rest... A pair of self-aligning, ball bearing Flexo-Crane trucks cost only..... $119.00
Simple instructions come with shipment.

Complete Flexo-Crane, with hoist and accessories, is also economically priced. To get full details, ask for—

BULLETIN F-114

The Abell-Howe Line includes a wide range of overhead cranes monorails, hoists and accessories.

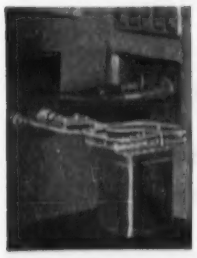
ABELL-HOWE COMPANY 7747 VAN BUREN ST. FOREST PARK, ILL.

For more details circle NED-1009 B7 on enclosed inquiry slip

The Lepel line of induction heating units represents the most advanced thought in the field of electronics as well as the most practical and efficient source of heat yet developed for industrial heating. With a background of half a century of electrical and metallurgical experience, the name Lepel has become the symbol for quality in induction heating equipment embodying the highest standards of engineering achievement, dependable low cost operation and safety.

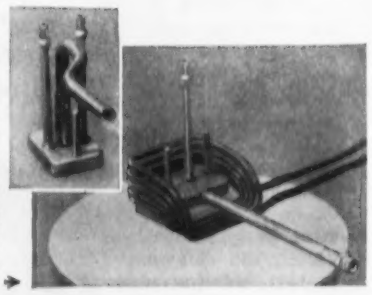
If you are interested in the application of induction heating you are invited to send samples of the work with specifications of the operations to be performed. Our engineers will process these samples and return the completed job with full data and recommendations without any cost or obligation.

TYPICAL INDUCTION HEATING APPLICATIONS



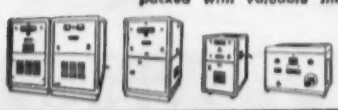
A Lepel Installation at Federal Telephone and Radio Co. shown soldering transformer terminals. A precision operation made so simple that even unskilled operators can achieve excellent results on a production basis.

The simultaneous soldering of a group of components within one load is an ideal application for induction heating. The assemblies consist of mounting studs and tubes inserted into a machined part together with preformed solder rings. The heating is done so rapidly that there is practically no scaling or discoloration.



LEPEL Electronic Tube GENERATORS—1 KW; 2½ KW; 5 KW; 10 KW; 20 KW; 30 KW; 50 KW; 75 KW; 100 KW.
LEPEL Spark Gap Converters
2 KW; 4 KW; 7½ KW; 15 KW; 30 KW.

WRITE FOR THE NEW LEPEL CATALOG . . . 36 illustrated pages packed with valuable information.



All Lepel equipment is certified to comply with the requirements of the Federal Communications Commission.

LEPEL HIGH FREQUENCY LABORATORIES, INC.
55th STREET and 37th AVENUE, WOODSIDE 77, NEW YORK CITY, N. Y.

For more details circle NED-1010 B7 on enclosed inquiry slip

New Literature & Catalogs

Protecting the Worker's Head

E. D. Bullard Co.—Cartoons used in 12-page booklet "Attempted Murder" drive home the importance of head protection with safety helmets in all types of industries. Case histories dramatically demonstrate the need for wearing safety hard hats and the importance of wearing them correctly.

For more details circle NED-1011 B7 on enclosed inquiry slip

Aluminum in Stock

Joseph T. Ryerson & Son, Inc.—Sizes and weights of Reynolds aluminum bar, rod, sheet, coil, plate, tubular and building products carried in stock in New York and New England steel service plants are listed in 16-page illustrated bulletin. Guide to selection, data on cutting facilities, finishes and mechanical properties are also among contents.

For more details circle NED-1012 B7 on enclosed inquiry slip

Stitched Canvas Belting

Imperial Belting Co. — Descriptions of Imperial brands of stitched canvas belting for conveyors, elevators and power transmission are found in illustrated belting catalog and engineering handbook. Included are recommendation chart, guide to maximum belt life and technical data.

For more details circle NED-1013 B7 on enclosed inquiry slip

Cold Galvanizing Compound

American Solder & Flux Co.—Iron and steel surfaces can be rustproofed, welded joints corrosion-proofed and damaged galvanized surfaces repaired by Drygalv, a cold galvanizing compound described in 4-page bulletin 5610. Nontoxic, 95-per cent metallic zinc compound is brush or spray applied.

For more details circle NED-1014 B7 on enclosed inquiry slip

Template Drill Bushings

Penn Engineering & Mfg. Co.—Self-clinching template drill bushings—one piece units of heat treated steel which require a single hole for mounting—are described and illustrated in 12-page catalog DB-855. No special tools are required to install. Sizes for drills from No. 55 to ½-in. are offered.

For more details circle NED-1015 B7 on enclosed inquiry slip

Grinding & Mixing Equipment

U. S. Stoneware Co., Process Equipment Div.—Illustrations, technical data and specifications on line of grinding and mixing equipment, including jar, ball and pebble mills, mill jars, grinding media, drum rollers and tumblers, and special mixing equipment are found in 24-page manual 280.

For more details circle NED-1016 B7 on enclosed inquiry slip

Plating & Processing Equipment

Meaker Co.—Described and illustrated in 8-page bulletin 856 are low-head side-arm automatic plating machine, Little Giant utility plating and processing machine, and automatic barrel plating machine. Typical floor plans, cross section drawings and pertinent features are covered.

For more details circle NED-1017 B7 on enclosed inquiry slip

Tracer-Controlled Multicycle Lathe

Monarch Machine Tool Co.—Multicycle programmer control system, air gage tracer mechanism, constant surface cutting speed control and optional automation system for mechanized workpiece handling are features of Model 21 Mona-Matic lathe detailed in 22-page illustrated bulletin 1808. Basic operating principles are discussed in detail.

For more details circle NED-1018 B7 on enclosed inquiry slip

Spring Design & Selection

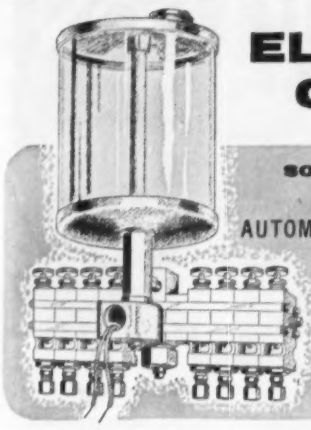
Associated Spring Corp.—Fundamentals of spring design are presented in easy-to-grasp form and in sufficient detail to guide the product designer through the initial stages of a spring design problem in 8-page brochure. Basic formulas, commonly used materials, typical applications and limitations of each of various types of springs are included, along with technical data.

For more details circle NED-1019 B7 on enclosed inquiry slip

Portable Electric Tools

Porter-Cable Machine Co.—32-page 1957 catalog 104 describes 69 portable electric tools and kits with over 400 accessories. A valuable guide to industrial maintenance men, booklet provides over 150 pictures of tools and their uses. Specs cover portable electric saws, sanders, drills, planes, routers, shapers, combination tools, grinders, hedge shears and grass trimmers.

For more details circle NED-1020 B7 on enclosed inquiry slip



ELECTRO OILER

SOLENOID VALVE OPERATED
AUTOMATIC LUBRICATION
MULTIPLE AND SINGLE
9 oz. — 1 gal.
1 — 24 feeds

Here is the ideal central lubricator for *machine tools, punch presses, paper-textile-laundry-baking machinery, inaccessible bearings, etc.* Oil is fed by gravity to individually adjustable feed outlets. Solenoid is wired across line of driving motor and oiling starts or stops with motor switch. There is only one reservoir to fill, replacing up to 24 individual oil cups.

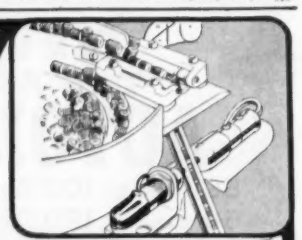
write for catalog!

Oil Cups • Dispensers
Oiling Systems • Valves
Oil Gages • Chain Oilers

Oil-Rite CORPORATION
2364 Waldo Boulevard
Manitowoc, Wisconsin

For more details circle NED-1021 B7 on enclosed inquiry slip

Preview!



SET SCREW AUTOMATION

... See How Setko System* Saves 80 to 90% Operational Time!

A new Setko movie on hopper feeding of headless set screws "demonstrates" an exciting approach to assembly automation. This 12 minute, 16-mm color film previews the opportunities for automation in inserting and driving headless set screws as small as #2 (.086" x ⅛").

Users of this revolutionary new system report cuts in operational time of 80% to 90% ... elimination of floor waste ... drastic reduction in floor area.

Setko innovations include application of air feed, microswitches and photo-electric cells. The Setko system is adaptable to individual requirements including vertical or horizontal feeding, semi-automatic or full automatic work feeding, installation on rotary indexing work tables, drill presses, vertical tapping machines, etc.

FREE DEMONSTRATION!

This new film is available for a "demonstration" in your plant or office. There's no obligation involved. For information about the film, or for a *free* copy of Catalog 21 which describes the Setko System, write direct.

Set Screw & Mfg. Co. *Pat. Pend.

130 Main Street, Bartlett, Illinois (Chicago Suburb)

We Specialize in Solving Puzzling Set Screw Problems

For more details circle NED-1022 B7 on enclosed inquiry slip

5 reasons why you should specify T&B Sta-kon® Terminals

HIGH CONDUCTIVITY... Pure electrolytic copper tongue. Long stake mark assures large contact area for low resistance and low voltage drop.

TIGHT, SURE CONNECTIONS... Serrated tongue and barrel never relax grip on cable. Once staked, T&B Sta-kon Terminals are on to stay.

EASY TO INSTALL... without flame, heat or flux. A T&B Shure-Stake hand tool is all you need to stake terminal to cable... bench tools also available.

CORROSION RESISTANT... Cable and barrel are compressed into a solid mass. There are no voids to permit interior attack from corrosive agents or atmospheres.

AVAILABLE IN A COMPLETE LINE... Including "specials". Wire sizes 22 to 4/0. Varied tongue styles and stud sizes, with and without insulation.

T 321

THE THOMAS & BETTS CO.
INCORPORATED
24 Butler Street, Elizabeth 1, New Jersey
THOMAS & BETTS LTD., MONTREAL, P. Q., CANADA

For more details circle NED-1023 B7 on enclosed inquiry slip

ELECTRONIC BALANCER

MODEL SU-6 ELECTRONIC BALANCER HANDLES ANY ROTATING BODY from 4 ounces to 100 pounds. Diameters to 20 inches.

Requiring minimum space, minimum fixturization, and featuring extreme simplicity of operation, the SU-6 Dynamic Balancer is completely electronic in both detection and location of unbalance. It provides direct, precise reading of magnitude and position of unbalance. For manufacturers and shops seeking a precision machine with great range and versatility, the SU-6 offers the very finest characteristics at the lowest price available!

WRITE FOR COMPLETE INFORMATION.

M-B MICRO BALANCING, INC.
Herricks Road, Garden City Park, N. Y.
Most Famous Name In Dynamic Balancers

For more details circle NED-1024 B7 on enclosed inquiry slip

NEW

INDUSTRIAL AIR DRILL HAS METERING TRIGGER

Gives positive R.P.M. Control from 0 to 2500

New SP-1000 Industrial Air Drill has Superior's exclusive metering trigger — gives positive R. P. M. control from 0 to 2500. The SP-1000 weighs only 2 lbs., has ¼" capacity, a safety chuck shield and ¼ h.p. at 90 P.S.I.

Light weight and easy to use, the drill cuts down operator fatigue — is an excellent production tool for automotive, aircraft, sheet metal and other industrial operations. Nickel steel gears and pre-loaded sealed bearings keep maintenance costs at a minimum. Available with pistol grip, as illustrated, or straight handle.

Write Dept. N-2

SUPERIOR PNEUMATIC & MANUFACTURING, INC.
4758 Warner Rd. Cleveland 25, Ohio

For more details circle NED-1025 B7 on enclosed inquiry slip

Get smooth power out of your cylinders–

USE Schrader® FLOW CONTROL VALVES

Schrader Flow Control Valves give you positive control of compressed air to cylinders.

An adjustment screw permits quick increase or decrease in flow, from zero pressure to full, governing piston speed in either direction without reducing the force.

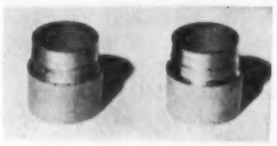
Schrader Flow Control Valves are available in five sizes, from ⅛" to ¾" thread. They are made of corrosion-resistant materials throughout. Their simple construction allows for easy servicing without removing them from the line. These valves are also suitable for liquids. Send today for complete information.

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
459 Vanderbilt Avenue, Dept. M-7, Brooklyn 38, N. Y.

For more details circle NED-1026 B7 on enclosed inquiry slip

New Processes & Materials

SINTERED IRON MATERIAL has free-machining qualities



Free-machining properties are featured by Powdiron FM, a sintered iron material for use in bearings and structural parts. Machined parts have smooth mirror-like surface finish comparable to mild steel, as shown in comparison photo. Material does not contain any copper and is thus relatively inexpensive. Ductility is high. Made by **Bound Brook Oil-Less Bearing Co.,** Dept. N, Bound Brook, N. J.

For more details circle NED-1027 B7 on enclosed inquiry slip

DIP FINISH COATINGS for zinc and cadmium-plated parts

Four dip compounds developed for finish coating zinc and cadium-plated parts are suitable for hand operated still tanks, barrels and fully automatic machines. Unichrome dry dip compound 1085, a leachless, chromate dip with long tank life, gives bright, clear coat to such zinc-plated products as conduit, outlet boxes and steel strip. Unichrome dip compound 1090, with the same properties as 1085, is furnished as liquid concentrate for use in 50:1 solutions. Dry dip compound 1084, adapted to finishing cadium-plated parts, provides a corrosion-resistant finish. It is suitable for finishing thin plated bulk work. Luster and stability are excellent. Compound 99 is a liquid version of 1084. Formulated by **Metal & Thermit Corp.,** Dept. NED, Rahway, N. J.

For more details circle NED-1028 B7 on enclosed inquiry slip

BARREL FINISHING MEDIA abrasive spheres in five diameters

Alundum aluminum oxide abrasive is material from which Tumblex S barrel finishing media is made. The dense, long lasting abrasive spheres are suited

for barrel finishing of hard-to-contact recesses or intricate shapes, including tubing, coil springs, scissor handles, bearing retainers and pump bodies. Manufacturers with parts which may be suitable for finishing with the media can send samples to Sample Processing Laboratory of **Norton Co.,** 200 New Bond St., Worcester 6, Mass.

For more details circle NED-1029 B7 on enclosed inquiry slip

Dwyer DRAFT GAGES

- Made from a solid block of clear acrylic plastic material — indicating tube and oil chambers drilled and reamed
- Maximum scale visibility
- unbreakable construction.
- A wide variety of stationary and portable gages, each furnished complete with tubing and all accessories.

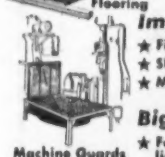
WRITE FOR BULLETIN B-1

F. W. DWYER MFG. CO. P. O. BOX 373-O MICHIGAN CITY, IND.

For more details circle NED-1030 B7 on enclosed inquiry slip

FOR MAXIMUM SAFETY all over your plant use Safety GRIP-STRUT

the new basic material, all in one piece (including channels), not welded, riveted or expanded in steel or aluminum, in standard sizes and gauges. Safety GRIP-STRUT presents an open space, in a diamond pattern, in excess of 55% of the area for ready access of light and air and gives a positive NON-SKID footing in all directions. Ideal for work platforms, stair and ladder steps, flooring, balconies, catwalks, machinery guards, fire escapes and for original equipment safety treads.



Important Safety Features
- ★ Fire proof
- ★ Slip proof
- ★ Maximum strength
- ★ Minimum weight
- ★ Easy to stand on
- ★ Cool in summer — warm in winter

Big Economy Features
- ★ For balconies — no extra light needed below — no extra heat.
- ★ No extra supports necessary — channels are integral part of the material
- ★ No secondary sprinkler heads needed
- ★ Self-cleaning
- ★ Cut and installed like lumber by your own maintenance force
- ★ Low in original cost

Distributors in all principal cities. Consult yellow pages in phone book under "GRATING."

SEND FOR NEW CATALOG

GRIP-STRUT division
THE GLOBE COMPANY • *Manufacturers since 1918*
4002 S. PRINCETON AVE. • CHICAGO 9, ILL.

For more details circle NED-1031 B7 on enclosed inquiry slip

FASTER... SURER... INSPECTION

PRICES START FROM $10.95

Hundreds of uses, FLASH-O-LENS spotlights area it magnifies, speeds inspection, adds accuracy. Battery, plug-in models.

PIKE REG. U. S. PAT. OFF.

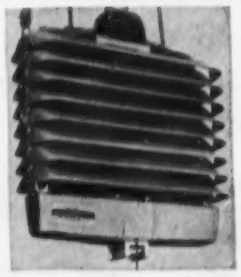
WRITE TODAY for literature showing uses, types, prices

Established 1927

E. W. PIKE & COMPANY
498 North Avenue Elizabeth 3, N. J.

For more details circle NED-1032 B7 on enclosed inquiry slip

heats like the sun



The sun needs no fans, motor or moving parts, and neither does the overhead PANELBLOC—the gas fired, infra-radiant heater.

Two sizes meet all commercial and industrial heating needs.

Next to the sun—PANELBLOC is best.

PANELBLOC

Prat-Daniel Corp., Thermobloc Div. 9-2
2 Meadow St., So. Norwalk, Conn.
Please send complete information on economical Panelbloc Industrial Heaters.
Name .....
Address .....
City ..... State .....

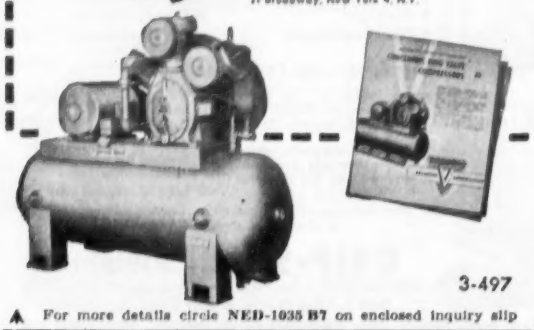
For more details circle NED-1033 B7 on enclosed inquiry slip

write for new catalogs

New catalogs show the features and performance data of the Ingersoll-Rand Type 30 Compressors and Vacuum Pumps—from ½ to 20 hp—send for your copies today and find out more about

- Balanced V Construction
- I-R Tested Valves
- Foolproof Unloading

Ingersoll-Rand
11 Broadway, New York 4, N.Y.



3-497

For more details circle NED-1035 B7 on enclosed inquiry slip

New Literature & Catalogs

Standard Plastic Knobs

Kurz-Kasch Inc., Standard Parts Div.—A versatile and complete line of standard instrument and control knobs, dials and assemblies produced quickly from stock tools is listed in 16-page illustrated catalog 106. Knobs can be made of any thermosetting plastic material.

For more details circle NED-1038 B7 on enclosed inquiry slip

Trolley Conveyor Wheels

Grey Hub Trolley Wheel Co.—Design and dimensional information relative to trolley wheels for every type conveyor is provided in 12-page brochure. I-beam trolleys in capacities from 250 to 12,000 lb are also specified. Wheels are hardened, sealed and have ball-roller bearings. They are offered in plain, flanged and geared types.

For more details circle NED-1039 B7 on enclosed inquiry slip

Engineered Plastics Service

Engineered Plastics, Inc.—Technical service for the design, development and applications of plastic products is described briefly in 4-page bulletin "Make EPI Your Plastics Headquarters." Company offers precision machining facilities and special tooling and fixtures.

For more details circle NED-1040 B7 on enclosed inquiry slip

Illuminated Magnifier

E. W. Pike & Co.—Flash-O-Lens illuminated magnifiers for every inspection job are described in 12-page fold-out bulletin. Battery models which work like a flashlight and electric models, as well as such special units as the electric reader, pen microscope and the flaw finder are shown. Envelope and stamp moisteners are covered as well.

For more details circle NED-1041 B7 on enclosed inquiry slip

Lubricated Plug Valves

Homestead Valve Mfg. Co.—28-page reference book 39-5 shows 100-per-cent pipe area, venturi, round port and diamond port lubricated plug valves. Units are intended for 150 psi steam pressure, 200 psi oil-water-gas and ASA 150 and 300 psi service. Lever-operated, and worm and gear-operated valves are covered as are different types of power operators.

For more details circle NED-1042 B7 on enclosed inquiry slip

Floor Maintenance Equipment

Finnell System, Inc.—Everything for floor care—scrubbing, waxing, polishing and mopping equipment, as well as waxes, sealers and cleansers—is described in 4-page folder. Featured item is a heavy duty vacuum cleaner with 1½-hp, 115 v ac-dc motor and tank capacity of 12 gallons wet, 1¼ bushels dry.

For more details circle NED-1043 B7 on enclosed inquiry slip

Refractory Materials

Richard C. Remmey Son Co.—Nineteen brands of refractory brick for a wide variety of industries are descriptively covered as to properties and applications in 8-page bulletin RB-20. Special refractory shapes are briefly described and plant facilities, including a regenerative kiln capable of firing 120 tons to cone 37 (3300° F) during a single firing, are shown.

For more details circle NED-1044 B7 on enclosed inquiry slip

Abrasive Selection Guide

Pangborn Corp. — Characteristics, application and selection of complete line of blast cleaning abrasives are subjects covered in 12-page bulletin 333 which is offered as a guide to selection of the proper abrasive for every blast cleaning need.

For more details circle NED-1045 B7 on enclosed inquiry slip

Various Fastening Devices

Holub Industries, Inc.—Fastening devices listed in 4-page form FDB-556 include split wing and tumble type toggle bolts, machine screw lead anchors, wood screw lead shields, lag screw shields and expansion bolts. Plastic screw anchors and the K-8 anchoring kit are featured. Plastic anchors can be used in any material that can be drilled.

For more details circle NED-1046 B7 on enclosed inquiry slip

Clutches

Marland One-Way Clutch Co.—76-page engineering manual and catalog covers automatic free-wheeling clutches, combination clutch-couplings, backstops to prevent reverse operation and enclosed free-wheeling clutch units for continuous operation under adverse operating conditions.

For more details circle NED-1047 B7 on enclosed inquiry slip

NEW pocket size thickness gauge

ELCOMETER

Measures Non-Magnetic Coatings with ± 5% ± .0001" Accuracy

ELCOMETER measures thickness of porcelain enamel, paints, platings, foils, glass, paper, plastics, and other non-magnetic coatings quickly and accurately. Gauges flat or curved surfaces and hard-to-get-at spots easily. Needle locking device assures correct reading every time. Complete with tough leather case containing inner pocket for test strips. Weighs only 6 oz. Completely self-contained. Retail price: $68.00, F. O. B. Cleveland.

WRITE FOR ILLUSTRATED FOLDER

FERRO

FERRO CORPORATION

4181 East 56th St. • Cleveland 5, Ohio

For more details circle NED-1048 B7 on enclosed inquiry slip

LERMER PLASTIC CONTAINERS

Help You Make Satisfied Customers

- They are shatterproof, assuring long life.
- They are 75% lighter than glass, effecting enormous savings in shipping.
- They are available clear or opaque in a multitude of lustrous colors.
- They can be handsomely decorated and printed during manufacture to carry your story.

LERMER PLASTICS, INC. 514 South Ave. Garwood, N. J.

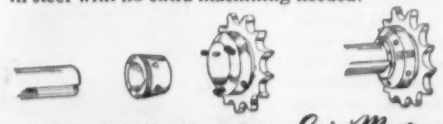
REPRESENTATIVES IN THESE CITIES: Rochester, Memphis, Miami, Cincinnati, Columbus, Cleveland, Chicago, Detroit, Minneapolis, Philadelphia, San Francisco, Los Angeles, Toronto.

PIONEERS AND SPECIALISTS IN PLASTIC CONTAINERS

For more details circle NED-1049 B7 on enclosed inquiry slip

answer to better low-cost power transmission

Write today for the first really Engineered approach to the problem of supplying custom sprockets "off-the-shelf". Low installation cost and low maintenance cost. All sizes in steel with no extra machining needed!



your shaft size + bushing + sprocket = Grip-Master stock delivery

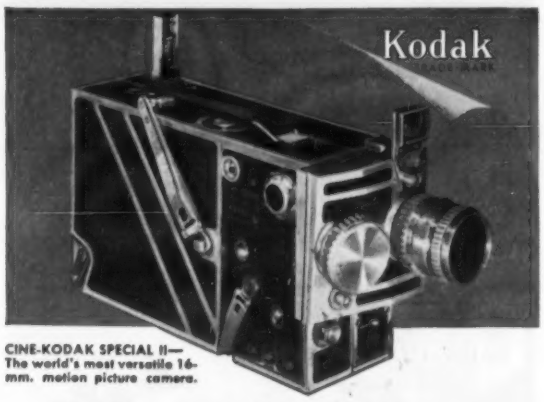
cullman

POWER TRANSMISSION ROLLER CHAINS AND SPROCKETS

REPRESENTATIVES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

CULLMAN WHEEL COMPANY, 1333 ALTGELD ST., CHICAGO 14, ILLINOIS

For more details circle NED-1050 B7 on enclosed inquiry slip



CINE-KODAK SPECIAL II—
The world's most versatile 16-mm. motion picture camera.

Make movies that work for you!

In almost every industrial activity—engineering, manufacturing, employee training, research, safety and methods evaluation—in-plant movies are the fastest, easiest, and most effective method for putting across your story.

And for on-the-job movie making, many leading industrial companies have chosen the Cine-Kodak Special II Camera. It has the versatility to handle almost any type of job. Yet its simplicity of operation enables you to get high-caliber results almost as easily as taking home movies.

WRITE FOR FREE BOOKLET, V1-3, describing the Cine-Kodak Special II.

EASTMAN KODAK COMPANY, Rochester 4, N. Y.

▲ For more details circle NED-1051 B7 on enclosed inquiry slip ▲

Give your product the EXTRA dependability of

P&S 3-WIRE GROUNDING DEVICES

MODERN DESIGN FEATURES . . .

- Compact, square bodies—small size leaves ample wiring room in box.
- Designed for side or back wiring.
- Extra-sturdy plastic parts; extra-heavy metal parts—for the roughest use.

You can't afford to compromise with quality. Each component must measure up to the standard you've set for the entire unit. That's why so many manufacturers insure the inherent quality of their products by specifying P&S – the finest line of modern wiring devices.

Every P&S device offers not just superb craftsmanship and advanced design, but the dependability, durability and performance earned by over 65 years of leadership in the wiring device industry.

Whatever your needs in specification wiring devices, you're sure to get complete satisfaction . . . *extra dependability* from the complete quality line – P&S.

FREE CATALOGS!

Write today for further information to Dept. NED-17

PASS & SEYMOUR, INC.
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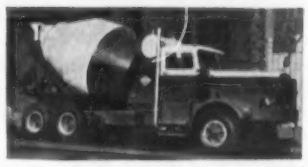
50 E. 42nd St., New York 17, N. Y. 1229 W. Washington Blvd., Chicago 7, Ill.
In Canada: Renfrew Elec. & Refrig. Co., Ltd., Renfrew, Ontario

▲ For more details circle NED-1052 B7 on enclosed inquiry slip ▲

New Processes & Materials

CORROSIONPROOF COATING
applied to metal, masonry or wood



Applied by conventional spray equipment, Profilm silicate modified coating will dry to the touch on most applications in a few minutes. Not a paint, it is intended for use where corrosive elements such as acids, alkalies, humidity, moisture and salt are a source of coating failure. Coating is available in colors, black, clear, white and metallics in both baking and air-dry grades. Application can be to almost any coatable surface including ferrous and nonferrous metals, masonry, wood and asbestos. Its inert composition provides a uniform, continuous and low porosity film that is fire retardant and nontoxic. Distributed by **Allied Porcenell, Inc.**, 851 S. Market St., Waukegan, Ill.

▲ For more details circle NED-1053 B7 on enclosed inquiry slip ▲

PLASTIC FOAM
cures without heat or pressure

Polyurethane foam obtained by mixing Nafil AR resin and HM catalyst sets and cures quickly without use of external heat or pressure. A 2-lb per cu ft foam will set in 5 minutes and cure in 10 minutes at room temperature. Resulting closed cell foam is rigid and has strong, tough cell walls. Densities of 2 to 20 lb per cu ft can be obtained. Applications include insulation, structural reinforcement, sound deadening, potting, buoyancy, void filling and shock absorbing. Materials can be hand or machine mixed and applied by spraying or pouring. Made by **Chase Chemical Corp.**, 3523 Smallman St., Pitsburgh 1, Pa.

▲ For more details circle NED-1054 B7 on enclosed inquiry slip ▲

TANK LINER
allows for thermal compensation

Boltaron 6200 unplasticized polyvinyl chloride (type 1) is used in construction of expansion liner sheet, a tank liner with built-in thermal compensation. It affords high corrosion resistance. Corrugations built into the individual rigid sheets absorb the expansion and contraction caused by temperature differentials. Sheet measuring 30 x 60 x 3/16-in. allows lining tanks of almost unlimited size and shape. Use can be with wood, concrete, new or corroded metal tanks, or those of other material. Made by **H. N. Hartwell & Son, Inc.**, Industrial Plastics Div., Dept. N, Park Square Bldg., Boston 16, Mass.

▲ For more details circle NED-1055 B7 on enclosed inquiry slip ▲

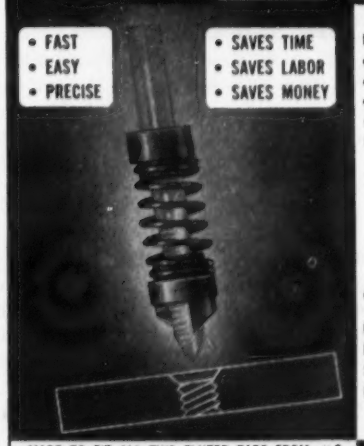
ELIMINATE a Complete Operation!

BURR-BIT PATENT PENDING

DE-BURRS TAPPED HOLE WHILE TAPPING

- FAST
- EASY
- PRECISE

- SAVES TIME
- SAVES LABOR
- SAVES MONEY



By merely slipping a BURR-BIT on your tap in a matter of seconds, a complete secondary operation is eliminated. Designed to fit all makes of taps.

- ELIMINATE A SPINDLE
- GET A PERFECTLY CLEAN HOLE
- DE-BURR THIN MATERIAL

CAN BE EFFICIENTLY USED ON PRACTICALLY ALL MATERIALS—STEEL, ALUMINUM, PLASTICS, ETC.

Write for full details—Dept. NE-2

MADE TO FIT ALL TWO FLUTED TAPS FROM #2 TO 3/8ths IN ALL PITCHES. AVAILABLE FOR THREE FLUTED TAPS ON SPECIAL ORDER.

BLADES MADE EXTRA LONG TO ENABLE RESHARPENING MANY TIMES.

THE SENSATIONAL BURR-BIT IS A HIGHLY PRECISE PRODUCT MADE OF THE FINEST QUALITY HIGH SPEED STEEL, INDIVIDUALLY INSPECTED.

Dealers Inquiries Invited!

VERNON DEVICES, INC.
481 East 3rd Street, Mt. Vernon, N. Y.

▲ For more details circle NED-1056 B7 on enclosed inquiry slip ▲

FLEXIBLE STORAGE

Independent and self-contained, they readily accommodate to changes in stock requirements. Easily relocated; no bolting. You get more into less space; you save time in storing and issuing with Brown Section Racks. Iron and steel construction. Can't burn, warp, sag. Never wear out. Eliminate safety hazards. Act now! Write for complete specs and prices on models and sizes. Brown Engineering Co., 129 N. 3rd Street, Reading, Pa.

BROWN QUICK-SERVE RACKS

▲ For more details circle NED-1057 B7 on enclosed inquiry slip ▲

▲ For more details circle NED-1058 B7 on enclosed inquiry slip ▲

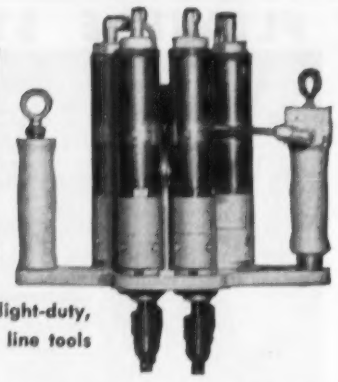
More power from existing conduit

Greater current-carrying capacity of Anaconda Type AB butyl high-voltage cable enables users to transmit the same amount of current with smaller cable . . . or up to 22% more current with the same size cable, when installed in conduit at 40°C ambient temperature. New engineering Bulletin EB-27 gives you full details on performance of Anaconda Type AB insulation in 15 Industry Specification Tests, including operating temperature. Write for your free copy—Bulletin EB-27. Anaconda Wire & Cable Company, 25 Broadway, New York 4, N. Y.

SEE THE MAN FROM **ANACONDA®**
—PIONEER IN **BUTYL INSULATION**

▲ For more details circle NED-1059 B7 on enclosed inquiry slip ▲

NEW assembly line tools



New series of Keller light-duty, multi-spindle assembly line tools

- Tailor-made from stock components to fit your blueprints.
- Operating torque range: 2 to 24 foot-pounds.
- Minimum bolt spacing: 1¼" centers.
- Maintains uniform torque setting.
- Boosts assembly output by driving 2 or more screws or nuts at the same time.
- Mounts on tool balancer for easy handling.

Get details from your Gardner-Denver man.

GARDNER-DENVER
KELLER TOOL division, Grand Haven, Michigan
THE QUALITY LEADER IN COMPRESSORS, PUMPS, ROCK DRILLS AND AIR TOOLS FOR CONSTRUCTION, MINING, PETROLEUM AND GENERAL INDUSTRY

▲ For more details circle NED-1060 B7 on enclosed inquiry slip ▲

BUSY AS A ClarkeAmatic

—but not nearly as effective at cleaning floors. In fact, nothing cleans large floor areas in a hurry like the Clarke-A-matic. This startling, new, self-propelled maintainer automatically meters solution, scrubs, rinses, picks up and dries—all in one easy operation. It's 10 to 20 times faster than mopping, cleans up to 28,200 sq. ft. per hour, slashes costs and keeps floors sparkling.

Clarke-A-matic Floor Maintainer has two speeds, choice of two sizes, 26" or 30" brush spreads. Electric, propane or gasoline power.

Clarke *For details, write:*
SANDING MACHINE CO.
222 Clay Avenue, Muskegon, Mich.

Authorized Sales Representatives and Service Branches in Principal Cities
Distributed in Canada: G. H. Wood & Co., Ltd., P.O. Box 34, Toronto 14, Ont.

▲ For more details circle NED-1061 B7 on enclosed inquiry slip ▲

PREVENT Fire and Destruction!

Never pour or bail hazardous flammable liquids from the drum! Never use an ordinary unprotected pump! The danger of sudden fire from a stray spark or unseen static electricity is always present and can start a fire that may cause serious injury and loss.

PROTECTOSEAL
Transfer Pump Assures
SAFETY

Tested and approved by Underwriters Laboratories, Inc., it is designed for complete safety from the bottom of the suction tube to the top of the discharge nozzle. *Fill in and mail* coupon today for illustrated, descriptive catalog.

Protectoseal designs and builds All Types of Approved Fire Preventive Equipment for the Storage, Transfer and Plant Use of all Flammable Liquids.
Use coupon to secure Selection Chart, Descriptions and Price List.

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THE PROTECTOSEAL CO., 1964 S. Western Ave., Chicago 8, Ill.
Send by return mail the descriptive literature checked below:
☐ Fire Protective Transfer Pump Catalog Sheet
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Name ____ Title ____
Company ____
Address ____
City ____ Zone ____ State ____

▲ For more details circle NED-1062 B7 on enclosed inquiry slip ▲

New Literature & Catalogs

Automatic Drying System

Orr & Sembower, Inc. — Packaged Dryalator for automatically drying lumber is subject of 8-page illustrated bulletin 1232. It has pneumatic recording controls, steam heating coils, and labor and time saving instrumentation. Table of drying speeds is included, along with schematic installation drawings.

▲ For more details circle NED-1063 B7 on enclosed inquiry slip ▲

Carbide-Tipped Saws

Forrest Mfg. Co. — Descriptive data on carbide-tipped saw blades for plastics, woodworking, graphic arts, metalworking and building material industries are contained in illustrated 8-page catalog. Description of "o.d. grinds" and their applications is included.

▲ For more details circle NED-1064 B7 on enclosed inquiry slip ▲

Magnetic Particle Inspection

Magnaflux Corp.—The how, why and where of a proven way to control quality, increase useful production, improve maintenance and raise profits are given in 16-page illustrated booklet 151 on Magnaflux-Magnaglo magnetic particle inspection. Purpose is to acquaint the user with the various and increasing uses of the process.

▲ For more details circle NED-1065 B7 on enclosed inquiry slip ▲

Code Marking Cans

Triple-E Engineering Co. — Review of current methods employed in code marking metal cans is found in 8-page illustrated bulletin. Featured is detailed description of Data-line coding method by which variable spaced scratches provide this information.

▲ For more details circle NED-1066 B7 on enclosed inquiry slip ▲

Electroplated Steel Wire

National-Standard Co.—Specifications and characteristics of Nickelply and Brassply electroplated steel wires are given in 8-page bulletin K-10. Coatings do not separate from base metal under severe twisting, bending, flattening or roll-threading. Properties and applications of both are included.

▲ For more details circle NED-1067 B7 on enclosed inquiry slip ▲

Light Duty Casters

Nagel-Chase Mfg. Co.—Standard sizes, styles and types of light duty casters for appliances, furniture, tool carts and light duty trucks are illustrated and described in 4-page condensed catalog.

▲ For more details circle NED-1068 B7 on enclosed inquiry slip ▲

High Bay Lighting Hangers

Thompson Electric Co.—Mechanism of high bay luminaire hangers described in 8-page illustrated bulletin TH-56 enables maintenance man to lower inaccesible lights to floor level for servicing. This is accomplished without electrical hazard. Hangers and accessories described are for UL-approved two and four-pole models.

▲ For more details circle NED-1069 B7 on enclosed inquiry slip ▲

Laminated Shims

Laminated Shim Co.—Technical data on laminated brass, mild steel, stainless steel and aluminum shims found in 8-page catalog conform with current design and installation requirements. Loose-leaf page itemizes sizes and prices of over 100 cup shims for tapered roller bearings.

▲ For more details circle NED-1070 B7 on enclosed inquiry slip ▲

How Corrugated Boxes Save Labor

Hinde & Dauch—"How to Save Labor Costs with Corrugated Boxes" is title and subject of 24-page illustrated Little Packaging Library booklet No. 4. Labor saving ideas, yardstick for measuring packing costs, areas where packing economies can be realized and simplification of package design are covered.

▲ For more details circle NED-1071 B7 on enclosed inquiry slip ▲

High Pressure Pumps

Philadelphia Pump & Machinery Co.—Pressures to 35,000 psi and capacities to 2000 gph can be realized with series HP controlled capacity pumps described in illustrated catalog HP-1254. Offered are 298 models in three basic pump frame sizes for 2, 3 and 4-in. strokes in simplex, duplex, triplex and quadruplex types.

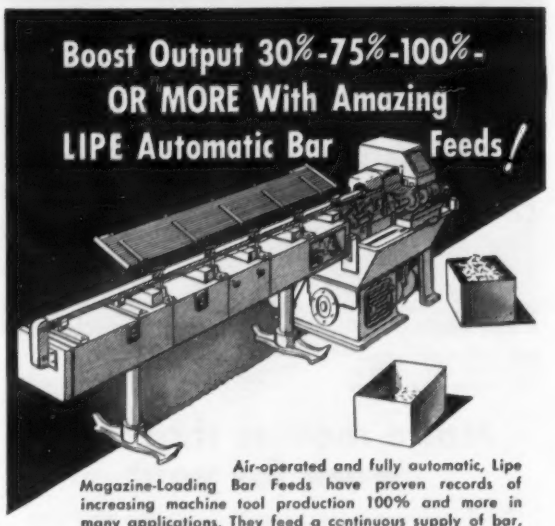
▲ For more details circle NED-1072 B7 on enclosed inquiry slip ▲

Special Fasteners

Buffalo Bolt Co.—Identified, illustrated and briefly described in 16-page booklet are 128 special fasteners designed by or for customers. Each solves a particular fastening problem.

▲ For more details circle NED-1073 B7 on enclosed inquiry slip ▲

Boost Output 30%-75%-100%- OR MORE With Amazing LIPE Automatic Bar Feeds!



Air-operated and fully automatic, Lipe Magazine-Loading Bar Feeds have proven records of increasing machine tool production 100% and more in many applications. They feed a continuous supply of bar, rods or tubing to any machine which can be equipped with a feed-length stop. Ideal for screw machines, turret lathes, centerless grinders, punch presses, thread rollers, etc.

SEND TODAY for free folder and complete details on how Lipe Automatic Magazine-Loading Bar Feeds can boost your production and profits.

Lipe-ROLLWAY CORPORATION SYRACUSE 1, N.Y.
Manufacturers of Automotive Clutches and Machine Tools

▲ For more details circle NED-1074 B7 on enclosed inquiry slip ▲

new

- **meets MIL-P-3115B type PBE-P**
- **exceeds NEMA standards for XXP**

New Formica Cirprint is the first and only copper clad laminate especially designed to meet the requirements of large volume manufacturers. It is far superior to any XXP ever made:

High IR: 250,000 megohms after 96 hours at 35° C and 90% relative humidity.

Cold punching: up to and including 1/16".

Low moisture absorption: 0.80% in 1" x 3" x 1/16" sample after 96 hours immersion.

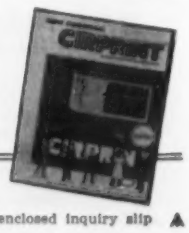
In addition, Cirprint is translucent and watermarked for your convenience and protection. Resists solder heat temperature of 450° F. Sheet sizes up to 36" x 96"; thickness from 1/32" to 1/4".

If you're a large volume consumer of circuitry, it will pay you to investigate Cirprint. Send today for free bulletin 755. Write Formica Corporation, a subsidiary of American Cyanamid, 4551-7 Spring Grove Ave., Cincinnati 32, Ohio.

FI-1428A

Send for free Cirprint Bulletin

Get the complete facts on this remarkable new Formica copper clad laminated plastic. Send for bulletin 755.



▲ For more details circle NED-1075 B7 on enclosed inquiry slip ▲

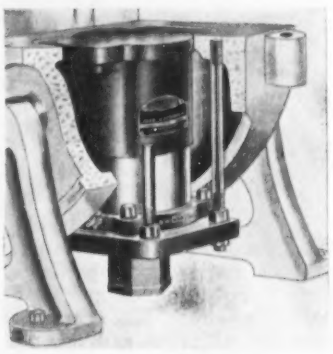
DIE CUSHIONS

FOR ALL DEEP DRAWING OPERATIONS

Furnished complete ready to install. Operates perfectly on all shop air lines.

ACCURATE ADJUSTABLE WORKING PRESSURES ASSURED
QUICK SETUP SAVES TIME
PRESS BED OR BOLSTER PLATE MOUNTING
17 MODELS AVAILABLE FROM STOCK, SIZES 3" THRU 16"

DIE CUSHIONS AVAILABLE FOR ANY POWER PRESS
ENGINEERING SERVICE AT YOUR DISPOSAL
ALL DIE CUSHIONS INSTALLED ON TRIAL BASIS



Full Universal Pneumatic Die Cushion

DAYTON ROGERS *Manufacturing Company*

MINNEAPOLIS 7E, MINNESOTA

For more details circle NED-1076 B7 on enclosed inquiry slip

FLEXAUST®

HOSE is the answer to DUST and FUME control

- FLEXAUST hose, made of neoprene coated cotton or nylon fabrics spiral wired reinforced, is strong and durable.
- Easy to cut, install, connect, reuse and relocate.
- Proven for 20 years in *all* kinds of dust and fume control. Especially good for elbows, offset bends and leads from permanent duct work to moving hoods, etc.

Sizes 1¼" thru 36" I.D.

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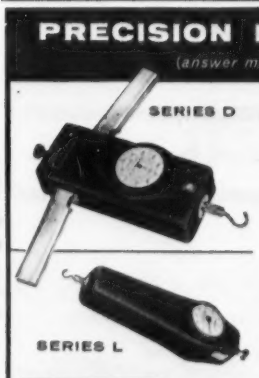
THE FLEXAUST COMPANY

Dept. NED-2 • 100 Park Avenue • New York 17, N. Y.

For more details circle NED-1077 B7 on enclosed inquiry slip

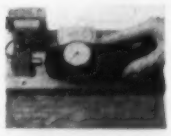
PRECISION FORCE GAGES

(answer many test standard requirements)



Hunter Mechanical Force Gages are precision-built, direct reading instruments for measuring forces in tension and compression. Are accurate to within 1% of full-scale. "Hold-at-maximum" indicator available as optional feature. Types and sizes available for measuring forces ranging from 0-500 grams to 0-200 pounds.

Standard part of military aircraft kit, Force Gage is a tool for adjustment of controls.



Force Gage is fixture held to test precise electrical assemblies.

Plastics manufacturers use Force Gage to test bond strength of foil coatings on laminates

Thousands of force gages now used for inspection, testing, quality control in labs, on production lines, in the field.

WRITE FOR BULLETIN 750C

HUNTER SPRING COMPANY
14 Spring Avenue, Lansdale, Pennsylvania

For more details circle NED-1078 B7 on enclosed inquiry slip

New Processes & Materials

FLOWED-IN GASKETS seal against oil, air and moisture

Double cost of fabricating and gluing on cut and molded gaskets is eliminated with use of Flowed-In gaskets. These gaskets effectively seal against oil, water, air and moisture. Typical uses are on shock absorbers, electric motors, auto tail light assemblies and hermetic seals for gages and delicate instruments. Equipped to do high-speed stamping, company can effect substantial savings through flowing gaskets onto stampings, combining several production operations. Offered by **Bernardin Bottle Cap Co.**, 2201 W. Maryland St., Evansville, Ind.

For more details circle NED-1079 B7 on enclosed inquiry slip

FLOOR REPAIR COMPOUND withstands heavy loads immediately

Expansion joints, floor cracks and other surface defects can be repaired with Jiffy Floor, a granular ready-to-use plastic product for filling hairline cracks, shallow holes or spalled floors. It withstands heavy loads immediately after application and can be applied indoors or outdoors, as it is unaffected by temperature change. Compound is waterproof, dustless, skid-proof and noiseless after application and is packaged in 5, 10, 30 and 55-gal drums, ready for use without mixing. Made by **Monroe Co.**, Dept. M-1, 10703 Quebec Ave., Cleveland 6, O.

For more details circle NED-1080 B7 on enclosed inquiry slip

INSTRUMENT LINE HARNESS is fire and impact resistant

Bundle of twelve ¼-in. OD linear polyethylene core tubes comprises Dekoron Super Poly-Cor fire and impact resistant instrument line harness. Over the bundle is extruded an extra heavy thermal and shock barrier covered with braided, fireproof AA asbestos. Assembly is then covered with extruded flame retardant outer sheath. Harness can be used in chemical processing and petrochemical plants in areas where flash fires or welding splatter is a danger. It can also be buried in the ground. Harness is available in length increments of 100 ft, or in 500-ft coils from **Samuel Moore & Co.**, Dekoron Products Div., Dept. NED, Mantua, O.

For more details circle NED-1081 B7 on enclosed inquiry slip

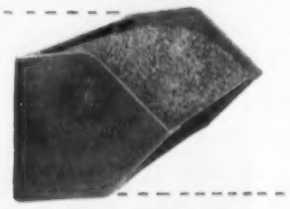
HIGH TEMPERATURE LUBRICANT resists breakdown, carbon formation

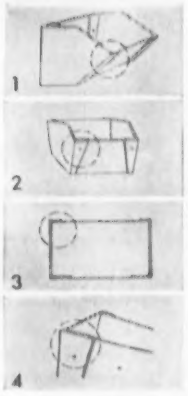
Used in machines operating at high temperatures, Keystone No. 49 Light lubricant resists oxidation, sludging and breakdown and virtually eliminates car-

bon formation problems. Oil was developed for air compressor use, but functions well in electric motor ring bearings, multiplate friction clutches, plastic molding heat transfer systems, drying oven conveyor chains and textile tenter frames. Photo shows absence of carbon deposit for No. 49 Light (right specimen) when baked for 72 hours at 300° F. Field tests reportedly show oil has 500 per cent longer usability and affords over 60 per cent savings in both maintenance costs and oil consumption. Developed by **Keystone Lubricating Co.**, 3100 N. 21st St., Philadelphia 32, Pa.

For more details circle NED-1082 B7 on enclosed inquiry slip

LINK-BELT "HS" elevator buckets





4 ways stronger

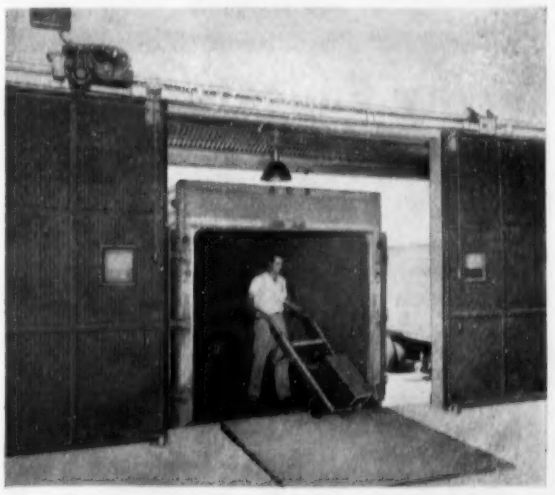
(1) Reinforced corners. (2) Rigid crimped-backs. (3) Body and end plates of same gauge steel. (4) Double-thick metal for end bolt holes. You get all these long-life features with Link-Belt "High-Speed" buckets. Ideal for handling fine, free-flowing, granular materials. For facts, write for your copy of Folder 2548-A.

LINK-BELT

"HS" ELEVATOR BUCKETS

LINK-BELT COMPANY: Executive Offices, Prudential Plaza, Chicago 1. To Serve Industry There Are Link-Belt Plants, Sales Offices, Stock Carrying Factory Branch Stores and Distributors in All Principal Cities. Export Office, New York 7; Canada, Scarboro (Toronto 13); Australia, Marrickville (Sydney), N.S.W.; South Africa, Springs. Representatives Throughout the World. 14.468

For more details circle NED-1083 B7 on enclosed inquiry slip



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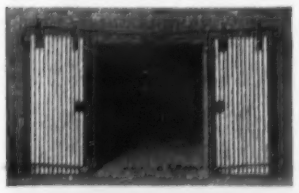
100% R-W EQUIPMENT

Richards-Wilcox sets the standard for every industrial door need and offers one dependable source for all of the necessary equipment to fill a door opening. R-W heavy-duty hardware, steel door frames, hangers, tracks, industrial doors and fire doors are all manufactured with precision and care to give you the ultimate in quality and service. R-W manufactures a complete line of industrial Electric Door Operators that are designed to economically meet the requirements of industry... and, most important, to fulfill these requirements for years to come.

Use RICHARDS-WILCOX INDUSTRIAL & FIRE DOORS DOOR HARDWARE ELECTRIC OPERATORS "Made for each other" SINCE 1880

R-W FIRE DOORS AND HARDWARE

Underwriters and Factory Mutual Laboratories approved for class A, B, C, D, E and F openings. R-W Fire Doors are available in flat-surface steel, tin-clad or corrugated sheet-metal construction for sliding, hinged or vertical door installations... with flat or round track and single or double link hardware.



For complete information... WRITE TODAY!

- ✓ Industrial Doors—request Catalog No. A-97
- ✓ Fire Doors and Hardware—request Catalog No. A-95
- ✓ Electric Industrial Door Operators—request Catalog 200

Richards-Wilcox MANUFACTURING COMPANY "A HANGER FOR ANY DOOR THAT SLIDES"

435 W. THIRD STREET, AURORA, ILLINOIS • Branches in Principal Cities

For more details circle NED-1084 B7 on enclosed inquiry slip

The all-new
DRAVO **COUNTERFLO** HEATER
Low cost, efficient space heating

Dravo direct-fired, forced-air space heaters are setting new records for efficiency and convenience. New from top to bottom, the Dravo *Counterflo* has these outstanding features:

New Discharge Plenum
New Airfoil Combustion Chamber
New Induced Draft Firing
New Pyrojet Burner
New Low Speed Fans

For complete information on the all-new Dravo *Counterflo* heater, contact your nearest Dravo representative or write for literature.

DRAVO
CORPORATION
Pittsburgh 22, Pa.
Representatives in principal cities

For more details circle NED-1085 B7 on enclosed inquiry slip

Why Faucets Leak

Faucet washers, when fastened with TOO LONG or SHORT screws – as in "9 out of 10" replacements by best mechanics – quickly work loose, destroy themselves!

"SEXAUER" finds the answer – after over 34 years research

Now, NEW Pat'd. "Sexauer" SELF-LOCK screws, with expanding NYLON PLUG imbedded in the threads, fasten and *lock* at correct depths AUTOMATICALLY, hold faucet washer *firmly*. Made of rust and corrosion resisting Monel, heads won't twist off, screw slots won't distort; they can be used over and over.

When installed with NEW Pat'd. "Sexauer" EASY-TITE faucet washers, this combination outlasts past faucet repairs "6 to 1"!

EASY-TITES are made of super-tough, pliable duPont compound (neither rubber nor fibre) to withstand super-hot water and make tight even on worn, corroded seats. They are further *reinforced* with a vulcanized layer of Fiberglas to resist distortion and splitting from shut-off squeeze.

The hidden costs of faucet leaks!

As authenticated by Hackensack, N. J. Water Co. and American Gas Association, stopping just ONE pin-hole (1/32") size leak can *reduce* water waste 8,000 gal. monthly. Stopping a *hot water* faucet "drip" can result in water and fuel saving of over $7.58 QUARTERLY – plus material and labor costs and *costly* fixture replacements!

That's why thousands of Government Agencies, Housing Projects, Hospitals, Colleges, Schools, Manufacturers, Hotels, Realties and Utilities – country wide – look to "SEXAUER" Technicians skilled in plumbing maintenance know-how. They are trained to determine stock levels thru complete SURVEYS of actual fixtures in service and to install stock systems that avoid over-stocking and shortages.

NEW SELF-LOCK SCREWS and EASY-TITE faucet washers are just part of the "SEXAUER" line of over 3000 TRIPLE-WEAR plumbing repair parts and Pat'd. precision tools.

A "SEXAUER" Technician in your vicinity will make our NEW, 126 pg. Catalog H available and gladly consult with you regarding your plumbing maintenance problems *without obligation*. Write today!

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Gentlemen: *Please send me a copy of your NEW, 126 page Catalog H.*
My name_____Title_____
Company or Institution_____
City_____Zone_____State_____

SEXAUER
WORLD'S LEADING SPECIALISTS IN PLUMBING AND HEATING REPAIR PARTS

For more details circle NED-1086 B7 on enclosed inquiry slip

New Literature & Catalogs

Annunciator Systems

Scam Instrument Corp.—Self-policing visual and audible annunciator systems are subject of 20-page illustrated 1957 catalog. Selection data, wiring diagrams, sample alarm sequences and installation and engineering data are included. Various accessories are also covered.

For more details circle NED-1087 B7 on enclosed inquiry slip

Silicone Products

Dow Corning Corp.—Almost 150 commercially available adhesives, water-repellents, dielectrics, release agents and other silicone products are grouped by usage and described in illustrated 1957 Reference Guide. Charts, tables and graphs are included, along with comparisons with materials they are replacing.

For more details circle NED-1088 B7 on enclosed inquiry slip

Impervious Graphite Processing Equipment

Aid in cost estimation and selection of Impervite impervious graphite processing equipment is provided by 32-page illustrated bulletin 249. Described are various heat exchanger types, cascade coolers, HCL absorbers, towers, centrifugal pumps, pipe, fittings and valves. Request on company letterhead from Falls Industries, Inc., Aurora Rd., Solon, O.

For more details circle NED-1089 B7 on enclosed inquiry slip

Jacketed Pipe & Fittings

Hetherington & Berner Inc. — Among cast and welded steel jacketed fittings described and illustrated in 8-page bulletin J-57 are strainers, crosses, elbows, tees and specials. Also covered are jacketed pipe and jacketed flexible hose for pressures up to 300 psi and temperatures to 750° F, jacketed pumps and valves.

For more details circle NED-1090 B7 on enclosed inquiry slip

Thermal Imaging Device

Baird Associates-Atomic Instrument Co.—Locating and monitoring of hot or cold spots can be performed by the Evaporograph direct thermal imaging device described in illustrated bulletin RD515. It tests bonds and laminations, process equipment, electronic component temperatures, and insulation. Operational data and specifications are included.

For more details circle NED-1091 B7 on enclosed inquiry slip

Industrial Plant Layouts

Industrial Models, Inc.—"Models for the Factory Floor" is an illustrated 8-page booklet which describes plant layout models, their advantages and applications. Uses include layout changes, process and materials flow and production planning. Pertinent questions are answered.

For more details circle NED-1092 B7 on enclosed inquiry slip

Floor Hardeners

A. C. Horn Co.—Durafax abrasive floor hardener, Ferem cement floor component for corrosion and abrasion protection, Hornolith liquid floor hardener and Ferro-Fax metallic floor hardener are four products for new construction described in series of illustrated 4-page booklets.

For more details circle NED-1093 B7 on enclosed inquiry slip

Processing Plastics with Infrared

Fostoria Pressed Steel Corp.—Capsule case histories on heating, baking, drying, dehydrating and curing of plastics in a variety of industries with radiant heat are contained in 8-page illustrated bulletin 56-106. Heat is derived from infrared lamp, radiant rod and quartz lamp oven sections.

For more details circle NED-1094 B7 on enclosed inquiry slip

Sheet Lifters

Downs Crane & Hoist Co.—Series 551 low headroom sheet lifters described in 2-page illustrated bulletin 202 enable one man to handle loose or bundled sheet steel. Design features and specifications of this model, and for series 541 loose hook, series 542 adjustable width and series 543 nonadjustable models are included.

For more details circle NED-1095 B7 on enclosed inquiry slip

Motor Selection Guide

Reliance Electric & Engineering Co.—Selection data on alternating current motors in 12-page bulletin B-2103-1 includes speed-frequency relationship, NEMA design classes, torque characteristics, NEMA current and torque values, frame selection tables, dimensions and modifications for 182 to 6085 frame sizes. Pictorial glossary of motor enclosure terminology is a highlight.

For more details circle NED-1096 B7 on enclosed inquiry slip

AIR-POWERED *Rotary* WORK FEEDER

Adjustable for 4, 6, 8, 12 or 24 Feeding Stations

Dial feed work pieces to drill presses, punch presses and other tools. Cut cost in half. Bellows Rotary Feed Tables are air-powered, electrically controlled for easy interlock with drill press spindles or press rams. All valves and controls are built-in. Ten inch diameter table top can be machined for mounting jigs and fixtures.

Write for Bulletin RT-1022. Address Dept. NED-257.

The Bellows Co.
AKRON 9, OHIO

For more details circle NED-1097 B7 on enclosed inquiry slip

Save on Your INDUSTRIAL TRACK

FULLY GUARANTEED

FOSTER *Quality* RELAYING RAILS

Lower installation and maintenance costs—handle more cars better.

Depend on Foster to match sizes and specifications to your exact requirements on any track job. Foster's nationwide warehouses also stock every Section of New Rail, 12# thru 175#, Switch Material and Track Accessories.

FASTER from FOSTER

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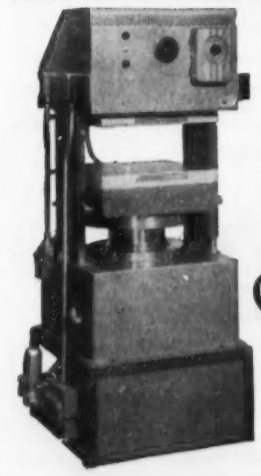
For more details circle NED-1098 B7 on enclosed inquiry slip

HYDRAULIC PRESSES

20 tons to 500 tons ram pressure



Platen area 8 to 24 inches
Motorized hydraulic system
Controlled platen temperatures to 600° F
Automatic time cycler
Customized to your requirements

PHI PRESS *formerly Preco*

Write for circular or if you prefer we'll have our nearest representative call on you...

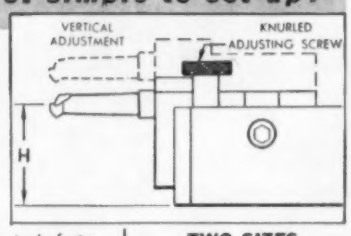
Pasadena Hydraulics, Inc., 1433 N. Lidcombe, El Monte, Calif.

For more details circle NED-1099 B7 on enclosed inquiry slip

Accurate—yet simple to set up!

TOOL HOLDERS

for Bokum Boring and Threading Tools



Lathe operators can set up tools faster and more accurately with Bokum tool holders. Adjustment is simple; the only movement—straight up and down—is controlled by a knurled Acme screw. Tool is positively locked in place.

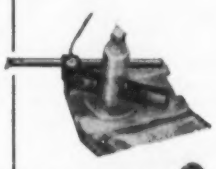
TWO SIZES

BT-0 SHANK, size ⅜" x 1" "H" adjustable from ⅛" to 1"

BT-1 SHANK, size ½" x 1¼" "H" adjustable from 13/16" to 1⅝"

For Engine Lathes..

Tool or bit is held under an angle of 30° with the axis of the shank in order to bypass the tool post of the lathe.



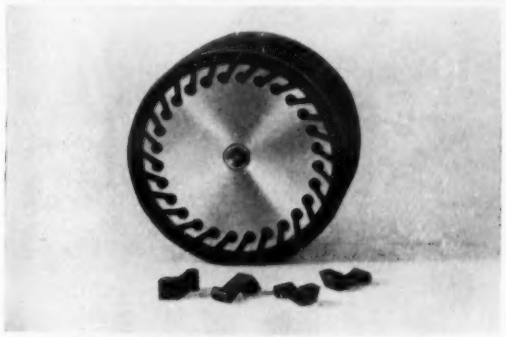
For Turret Lathes.....

Tool is held parallel to the axis of the shank. Holders, for both engine and turret lathes, available for ⅜" and ½" square tool bits.

Write for catalog 483-T

BOKUM TOOL CO. INC. 14775 Wildemere Ave. Detroit 38, Mich.

For more details circle NED-1100 B7 on enclosed inquiry slip



New FLEXCORE grinding wheel gives greater application flexibility

A series of separate, replaceable rubber segments (flexers) grip the coated abrasive and form the grinding surface of the new Flexcore grinding wheel. This interchangeable feature provides the following advantages:

LOW OPERATING COST. As flexers become worn or damaged they can be replaced singly or in groups. The core never needs to be replaced.

VARIABLE CUTTING ACTION. Flexers are available in a variety of hardnesses and so can be used in any combination to attain different cutting actions.

POSITIVE GRIP ON ABRASIVE BAND. The Flexcore is so designed that the flexers make complete peripherial contact with the coated abrasive band to provide strong holding power.

SEND TODAY for complete specifications, wheel sizes and prices.

NU-MATIC GRINDERS, INC.
8224 Carnegie Ave. Cleveland 3, Ohio

For more details circle NED-1101 B7 on enclosed inquiry slip

A & B TAPPING SCREWS by Southern

Manufactured to rigid specifications, of finest materials available. Southern Screws are famous for consistent high quality that adapt readily to speedier production.

A&B Tapping Screws with slotted or Phillips head in steel or aluminum. Flat, round, oval, pan, truss or special head styles. In bulk or EZ to C© packages. No. 4 through No. 14 diameters, ¼" to 2" long.

Also: WOOD SCREWS • MACHINE SCREWS & NUTS • DOWEL SCREWS • DRIVE SCREWS • CARRIAGE BOLTS • STOVE BOLTS • HANGER BOLTS

Call or write **Southern** for Fast Service on Fine Fasteners! Box 1360-NED, Statesville, N. C.

Southern SCREW COMPANY STATESVILLE • NORTH CAROLINA

Warehouses: New York • Chicago • Dallas • Los Angeles

For more details circle NED-1102 B7 on enclosed inquiry slip

New Processes & Materials

METAL TREATING PROCESS improves magnetic properties

Corrosion and wear resistance of electrical relay parts and other solenoid-operated devices is increased by the Chromallizing process which also improves their magnetic properties. Process involves a high temperature exchange of iron and chromium atoms, combining surface properties of stainless steel with the magnetic properties of the hydrogen-annealed Armco iron or electrical silicon iron from which the parts are made. The high chromium-iron alloy formed at the surface becomes an integral part of the metal and cannot peel, flake or chip off. Parts are custom processed by **Chromalloy Corp.**, Dept. NE, 450 Tarrytown Rd., White Plains, N. Y.

For more details circle NED-1103 B7 on enclosed inquiry slip

INSULATION COATING resists acids and heat up to 550° F

Chipproof, abrasion-resistant and highly dielectric coating can be painted on electrodes, holders, seam welding wheels and arms using No-Short insulation coating. Insulation serves to reduce shorts in resistance welding. It dries overnight, resists all acids and is unaffected by heat up to 550° F. Dielectric constant is 7.5 at 1000 cycles. Developed by **Lovell Chemical Co.**, Dept. 12, 36 Pleasant St., Watertown 72, Mass.

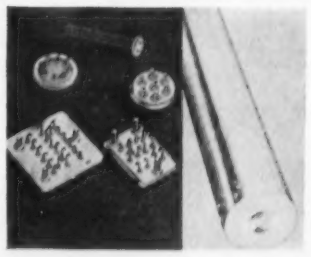
For more details circle NED-1104 B7 on enclosed inquiry slip

SELECTIVE SOLVENTS for vapor or immersion degreasing

Adaptable to vapor degreasing or cleaning by liquid immersion, Freon nonflammable selective solvents will remove oil, grease and dirt without harming delicate metal parts or electrical insulation. They are safe to use in ordinary open work areas with conventional ventilating equipment without danger of fire or explosion. Inhalation toxicity is low. Solvents are being used to clean new and reconditioned electric motors, electronic equipment, sound recording films and tapes, and breathing apparatus. They can also be added to more dangerous solvents to decrease the latter's flammability or change solvency or boiling point. Freon MF, BF and TF solvents have respective boiling points of 75, 199 and 118° F. Developed by **E. I. du Pont de Nemours & Co.** Dept. NED, 7506 Nemours Bldg., Wilmington 98, Del.

For more details circle NED-1105 B7 on enclosed inquiry slip

GLASS SEALING ALLOY increases current capacity with no increase in diameter



Up to three times the electrical conductivity of solid alloy wire is reported for copper-cored sealing alloy wire, composed of a solid oxygen-free, high conductivity copper core in a seamless sleeve of glass sealing alloy. Outside layer of the clad wire can be No. 52 alloy (50 per cent nickel-iron alloy), type 446 stainless steel, SAE 1010 steel, etc.

Copper-cored product increases current carrying capacity with no increase in diameter. Applications include glass-to-metal seals for terminals, hermetic seal headers for unit terminals, switches, relays, coils, capacitors and transformers. Wire is supplied in 6 to 9-ft coils and in rods with diameters from 0.010 to ¼-in., in annealed or cold drawn tempers. Production samples are available free. Made by **Metals & Controls Corp.**, General Plate Div., 1500 Forest St., Attleboro, Mass.

For more details circle NED-1106 B7 on enclosed inquiry slip

PUMPING SOMETHING tougher than this?

Nagle Pumps Can Handle It!

There's nothing more abrasive than sand, but this Nagle Pump handles tons of waste sand day after day, year after year, at this aggregate plant without complaining. Scores of sand and gravel producers praise Nagle Pumps.

Industrial plants and metal and coal mining companies by the hundreds have found Nagles best for pumping slurries, chemicals, high temperature solutions and for drainage.

Nagle Pumps are soundly engineered and constructed of abrasion and corrosion resistant materials—they are built specifically for the abusive jobs, require less maintenance, easier to service. A size and type of centrifugal pump for every need. Send for Catalog 5206.

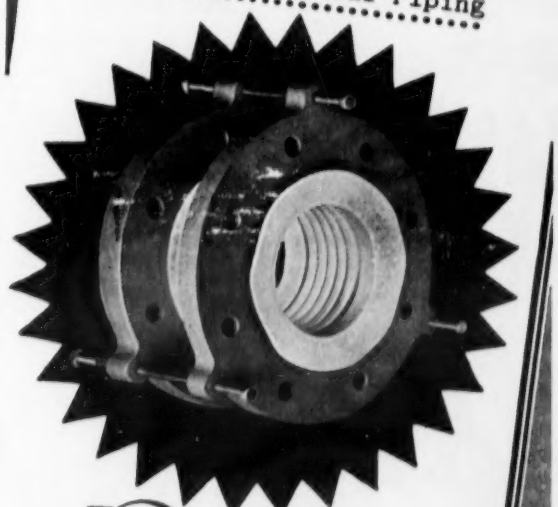
NAGLE PUMPS

NAGLE PUMPS, INC. 1265 CENTER AVE., CHICAGO HEIGHTS, ILL.

PUMPS FOR ABRASIVE AND CORROSIVE APPLICATIONS

For more details circle NED-1107 B7 on enclosed inquiry slip

good insurance policy for Your Chemical Piping



Chemiseal®

EXPANSION JOINTS FLEXIBLE COUPLINGS

• made of duPont TEFLON

now the "policy" of many Plants

Protect costly piping, usually low in impact strength, against shock, vibration, expansion and contraction. Save their cost in pipe maintenance.

Chemically impervious, non-contaminating (TEFLON).

Eliminate slip-joints, gaskets, adaptors. Made to mate with any companion flanges.

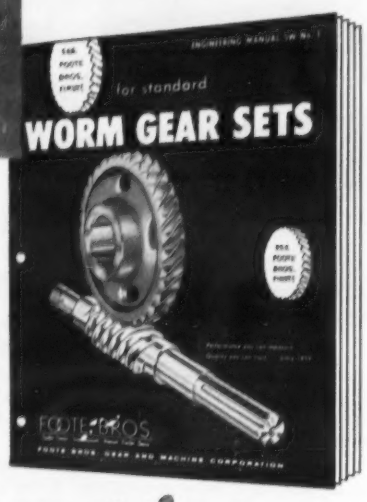
Standard Sizes from ½" to 10" I.P.S.

UNITED STATES GASKET CO.
CAMDEN 1, NEW JERSEY

For more details circle NED-1108 B7 on enclosed inquiry slip

free!

GUIDE TO BETTER WORM GEAR SELECTION



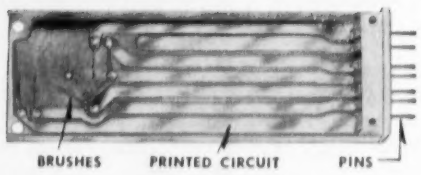
Here's complete information on Foote Bros. famous worm gear sets—plus simple-to-follow selection procedure and helpful design suggestions. Engineering Manual SW No. 1 is your guide to proven worm gear performance. Write for it today!

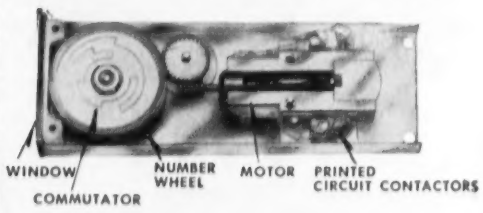
FOOTE BROS.
Better Power Transmission Through Better Gears
FOOTE BROS. GEAR AND MACHINE CORPORATION
4569 S. Western Blvd., Dept. NE,
Chicago 9, Illinois

For more details circle NED-1109 B7 on enclosed inquiry slip

New UNION Digital Indicator

combines data readout and storage facilities





Physical characteristics: Over-all length . . . 5⅛", width . . . 19/32", height . . . 1 41/64", weight . . . 7 oz., operating time at 24 volts . . . 0.8 sec., life expectancy . . . 1,000,000 operations. Character size . . . ⅜" x ¼".

The new UNION Digital Indicator will satisfy most requirements for data display, either local or remote. It is a companion product to our Alpha-Numerical Data Display Indicator but occupies only one-half the volume and requires under three watts power.

The ability of the indicator to operate as a storage facility, a readout device, and its inherent non-dissipating storage give it characteristics not to be found in any other indicator of this type.

The indicator is motor-driven and operates on a direct wire basis in response to binary code. The coded decimal notation was chosen for prototype to demonstrate more familiar uses, but other notations can be used if desired.

A typical application in a pipeline remote control system works like this: Telemetered digital data on temperature and pressure is received at a central station and entered into an intermediate storage. From there it is routed to the appropriate digital indicators for visual display and electrical storage for time programmed input to a telelog printer. Each indicator can store four binary bits and eliminates the use of relays for this purpose. Write for Bulletin 1011.

GENERAL APPARATUS SALES
UNION SWITCH & SIGNAL
DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY
PITTSBURGH 18, PENNSYLVANIA

For more details circle NED-1110 B7 on enclosed inquiry slip

New Literature & Catalogs

Engineering Data on Nuts

National Machine Products Co.—Basic engineering data and specifications on ¼ to 3-in. hexagon nuts, ¼ to ⅝-in. 12-pointer nuts, ¼ to 1½-in. Huglock and Marsden locknuts, and special nuts are found in 8-page catalog 7/Na.

For more details circle NED-1111 B7 on enclosed inquiry slip

Flexible Couplings

Morse Chain Co.—The Morflex principle which employs preloaded rubber biscuits as the flexible medium in torsionally flexible Morflex couplings is explained in 24-page catalog C 41-56. Specifications are given on standard, double and radial types along with data on coupling driveshafts.

For more details circle NED-1112 B7 on enclosed inquiry slip

Instrument & Servo Components

PIC Design Corp.—Over 4000 precision instrument and servo parts available from stock are listed in 128-page pocket-size catalog 11. Pages are packed with concise engineering data for use in the electronic and instrumentation fields. Cataloged items include precision ground shafting, bearings, pins, collars, couplings, precision spur gears, split hub adjustable gears, spur gear blanks, speed reducers, differentials, bearing adapters, retainer rings and many more.

For more details circle NED-1113 B7 on enclosed inquiry slip

Powdered Metal Parts

Lux Clock Mfg. Co., Powdered Metal Parts Div.—Original equipment manufacturers interested in replacing machined or assembled parts with powdered metal parts will find helpful information in 12-page brochure. Piece includes guide for brazing, welding, soldering, peening, riveting and machining powdered metal parts. Special finishes, storing of impregnated parts and reoiling are also discussed.

For more details circle NED-1114 B7 on enclosed inquiry slip

Hand Hoists & Pull Lifts

Yale & Towne Mfg. Co.—Key features and specifications on lightweight hand hoists, spur-geared hoists in many varieties, a ratchet hoist and trolleys are given in 44-page booklet. Hand hoists are built in ½ to 12-ton capacities; spur gear units in 500-lb to 40-ton capacities; and ratchet units in capacities from ¾ to 15 tons. Included is an article on hoist selection.

For more details circle NED-1115 B7 on enclosed inquiry slip

Remote Positioning Controls

Jordan Co.—Bulletin J-100 provides 8 pages of data on electrical remote positioning controls for both pushbutton and automatic operations. Featured is a shaft-mounted control gear motor for valves and variable speed drives to provide remote or automatic flow, speed, proportion and tension control.

For more details circle NED-1116 B7 on enclosed inquiry slip

Welded Steel Tubing

Revere Copper & Brass Inc.—Information and technical data are provided in 12-page brochure on Electric-Resistance welded steel tubing. According to brochure, tubing, which is made from quality strip steel through forming and sizing rolls, has dimensional accuracy, uniform walls, lightness and strength, and is easy to fabricate. Selections of tubing available are listed.

For more details circle NED-1117 B7 on enclosed inquiry slip

Overrunning & Indexing Clutches

Formsprag Co.—Current uses of sprag clutches in overrunning, indexing and backstopping categories are described and illustrated in 26-page catalog 104-C. Uses include auto transmissions, annealing furnaces, duplicating machines, punch presses, conveyor belts and jet-aircraft control actuators. Data covers large and small-bore, heavy and light duty, high speed and all-purpose ball-bearing clutches.

For more details circle NED-1118 B7 on enclosed inquiry slip

Carbide Tool Catalog

Nelco Tool Co.—Compiled for ready reference, 50-page catalog 956 describes over 700 carbide and carbide-tipped tools. It illustrates each tool in the Nelco standard line. Sections are devoted to centers, boring bars, replacement carbide tips, diamond wheels, drills for hardened steel, two to six-flute end mills, face mills, keyseat cutters, shell end mills, side milling cutters, slitting saws, Tri-Helix cutters and center cutting end mills.

For more details circle NED-1119 B7 on enclosed inquiry slip

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90%

Ferrous particles are removed from cutting oils, water-soluble coolants and other industrial oils by the magnetic attraction of the powerful magnets in the Hoffman "Magnaflo" separator unit. All coolant passing through the unit is continuously exposed to the fully immersed magnets. A high degree of clarity results. Sludge is discharged in near-dry condition, ready for easy disposal.

The "Magnaflo" functions at flow rates from 10 to 1,000 gpm. Sludge removal feature is built in and fully automatic. Operates without attention; requires practically no maintenance, and is solidly built for lasting service. Detailed technical information and specifications are yours when you write for free bulletin A-860, to:—

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U.S.HOFFMAN MACHINERY CORP.
Dept. NED, 103 Fourth Avenue, New York 3, N. Y.

For more details circle NED-1120 B7 on enclosed inquiry slip

OHIO PROJECTION WELDING FASTENERS

RH NUT
Thread Size ¼-20 & ⅜-16

WF NUT
Thread Size 6-32 to ⅜-16

SF NUT
Thread Size ⅜-16 & ½-13

Every type of OHIO weld nut offers distinct advantages in product assembly. The styles shown above are ideal for assemblies requiring extra strength and also provide a spacer or bearing surface, where required.

Samples and information available on over 500 stock parts

Specialists in the Manufacture of Weld Fasteners and Adjusting Screws
THE OHIO NUT AND BOLT COMPANY
14 First Avenue BEREA, OHIO

For more details circle NED-1121 B7 on enclosed inquiry slip

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DR MODEL 55

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2	52	102	152	202	252	302	352	402	452	502	552	602	652	702	752	802	852	902	952	1002	1052	1102	1152	1202
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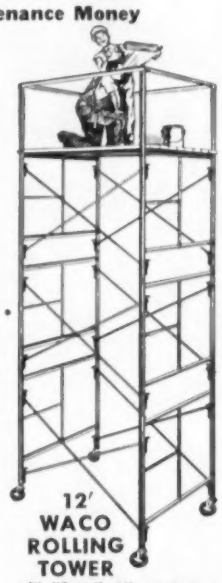


Waco Light Duty Rolling Towers are unparalleled for their versatility. Use Waco Light Duty Rolling Towers and you'll save money by reducing maintenance costs, increasing productivity (because less time is involved in moving, erecting and dismantling) and reducing workman fatigue.

This manual explains further how Waco Light Duty Rolling Towers bring you all these benefits at low cost. For instance, a 12′ rolling tower, with free-running rubber casters, and "Speedlock" method of attaching cross-braces to end frames, is only $112.00. Guard rails available at extra cost.

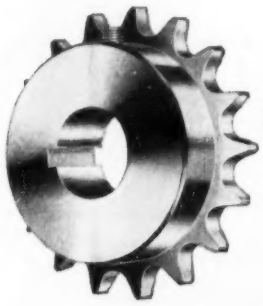
Send for your free manual today.

12′ WACO ROLLING TOWER with "Speedlock" only $112.00

Price includes 4" rubber casters

WACO MANUFACTURING CO.
3565 Wooddale Avenue • Minneapolis 16, Minnesota

For more details circle NED-1123 B7 on enclosed inquiry slip



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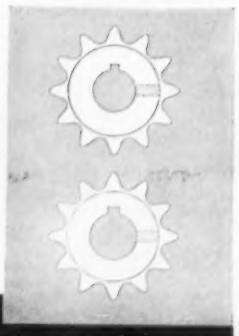

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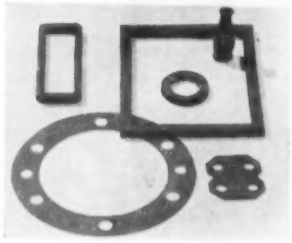
moldable low compression set type



Compressibility in the range of silicone sponge rubber is claimed for COHRlastic R-11568 silicone rubber stock. The low durometer material is initially available in custom molded 1/16 to 1-in. sections, 1/16 to ½-in. sheets and extruded 10-ft lengths. This soft sealing material is usable in thick or thin sections, in complicated or simple shapes. It has a −100 to 500° F range; is immune to ozone and weathering; and is odorless, tasteless, noncorrosive and noncontaminating. Sample is available from **Connecticut Hard Rubber Co.**, 415 East St., New Haven 9, Conn.

For more details circle NED-1125 B7 on enclosed inquiry slip

IRON POWDER ELECTRODE
for hard surfacing and buildup work

Hardalloy 32 iron powder low-hydrogen electrode will deposite a surface that resists extreme impact and moderate abrasion. Intended for hard surfacing and buildup work, electrode operates well with either alternating or direct current welding equipment and has deposition rate 25 per cent faster than usual. Slag removal is easy and clean. When applied to austenitic, 12-14 per cent manganese steel, slag will not fly off during cooling. Applied to C-1020 steel, first layer shows hardness of 18-21 Rockwell C. Four-layer hardness is 28-36 Rockwell C. Offered by **McKay Co.**, 314 McKay Bldg., Pittsburgh 22, Pa.

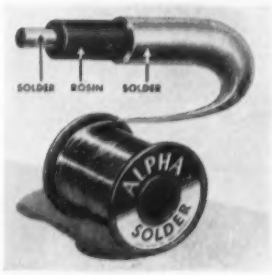
For more details circle NED-1126 B7 on enclosed inquiry slip

LATEX-CEMENT COATINGS
resist weather, water and wear

Interior and exterior structural surfaces can be waterproofed and made weather resistant with coating materials that combine Goodyear Pliolite latex with cement and cementitious materials. Latex provides flexibility, impact strength, water resistance and excellent adhesion to concrete, masonry, stone, wood, metal, glass or any other clean surface. Exterior concentrate as used on these stadium tiers protects against water, weather, inorganic acids, alkalies and salts, and is well suited for concrete surface finishing and roof coating work. It can be applied over structural concrete that has crumbled, honeycombed or spalled. Interior latex binder resists organic fats and oils, is hard wearing and can be used on terrazzo and industrial floors, over cured concrete slab or over wooden subflooring. Made by **Surco International Corp.**, Suite 302, 1389 Peachtree St. N.E., Atlanta 9, Ga.

For more details circle NED-1127 B7 on enclosed inquiry slip

ROSIN-FILLED SOLDER
in series of low temperature alloys



Typical of series of low temperature alloys for intermediate and special soldering applications in Cen-Tri-Core energized rosin-filled solder line is Alpha No. 238. It has a melting range of 242-320° F, making it effective where excessive heat could cause damage to metals being joined. Ceramic feed-through capacitors can be soldered without cracking due to thermal shock. Solder is available on 1, 5 and 25-lb spools in various diameters and flux percentages. Made by **Alpha Metals, Inc.**, 57 Water St., Jersey City 4, N. J.

For more details circle NED-1128 B7 on enclosed inquiry slip

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ROCK-TRED News RESN-X EDITION

25,269 gallons RESN-X

Used by One Leading Automotive Manufacturer

Estimate Approx. 800,000 Sq. Ft. Of Floor Surface Has Been Protected with This Amazing Product

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Automotive Co. Insisted On Only Resn-X After Extensive Tests Proved It Far Superior

Only Resn-X met the exacting requirements for a surface that could definitely resist the damaging effects of many known

Resn-X Is An Exclusive Formula Of Rock-Tred Corp. Has no Equal. Available in Colors

Resn-X is available in both trowel and brush consistencies. Different colors permit Resn-X applications over floor surfaces to harmonize wit

Industrial Floor Problems are Quickly Solved In Many Industries With Resn-X. It Resists Wear

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For more details circle NED-1129 B7 on enclosed inquiry slip

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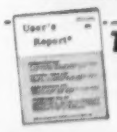

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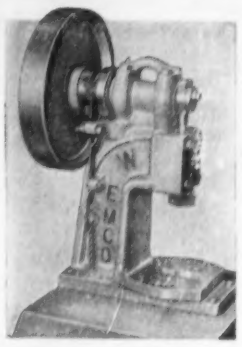

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Index to Advertisers

A

A & A Mfg. Co., Inc. 69
A'G'A Div. of Elastic Stop Nut Corp. of America....32, 99
Abart Gear & Machine Co... 62
Abell-Howe Co. 104
Accessory Products Corp. 86
Ace Plastic Co. 96
Acme Electric Corp. 58
Acromark Co. 86
Acushnet Process Co. 100
Adams, R. P., Co. 5, 90
Aerovent Fan Co., Inc. 42
Aget Manufacturing Co. 17
Airetool Mfg. Co. 36
Ajusto Equipment Co. 37
Albion Industries, Inc. 83
Alemite Div., Stewart-Warner 88
Allen, A. E., Co. 5
Allen-Bradley Co. 43
Allied Products Corp. 5
Allis-Chalmers Mfg. Co. 3, 22
Allis, Louis, Co., The 4
Aluminum Ladder Co. 29
American Air Filter Co. 39
American Brass Co. 40, 107
American Chain & Cable Co.. 18
American Machine & Metals, Inc. 58
American Metal Hose Div., American Brass Co. 40
American Monorail Co. 52
American Optical Co., Safety Products Div. 19
American Pulley Co. 101
American Recording Chart Co. 93
American Solder & Flux Co... 82
Ames, B. C., Co. 80
Amidon Engineering Co. 51
Ampower Products Co. 72
Anaconda Wire & Cable Co. 40, 107
Anchor Coupling Co. 113
Anchor Steel & Conveyor Co. 88
Anderson Bros. Mfg. Co. ... 68
Anderson, V. D., Co..... 12
Apex Machine & Tool Co. ... 45
Arcos Corp. 75
Arlin Products, Inc. 16
Armstrong Bray & Co. 20
Armstrong Bros. Tool Co. .. 11
Armstrong & White 101
Askania Regulator Co. 84
Atlas Industrial Corp. 79
Atlas Press Co., Clausing Div. 81
Aurand Mfg. & Equip. Co.... 11
Aurora Equipment Co. 59
Automatic Molding Machine Co. 103
Automatic Transportation Co. 92
Avery Adhesive Label Corp... 18

B

Babcock & Wilcox Co., The Tubular Products Div. 49
Bahnson Co. 88
Baker-Raulang Co. 37
Barber-Colman Co. 100
Barksdale Valves 72
Bassick Co. 92
Bathey Mfg. Co. 55
Bay Products Inc. 97
Bean, John, Industrial Sales Dept., Div. of Food Machinery & Chemical Corp. 5
Beaver Pipe Tools, Inc. 2
Beck, Charles, Machine Corp. 55
Bellows Co. 110
Black & Decker Mfg. Co. ... 116
Blackhawk Mfg. Co. 4
Benchmaster Mfg. Co. 73
Beverly Shear Mfg. Co. 61
Biddle, James G., Co. 49
Binks Mfg. Co. 102
Black Diamond Saw & Machine Works 85
Black Drill Co. 34
Black & Webster, Inc. 90
Bokum Tool Co. 111
Bolens Products Div., Food Machinery & Chemical Corp. 56
Bond Foundry & Machine Co. 44
Bostitch, Inc. 17
Boston Gear Works 113
Brooks Chemicals, Inc. 83
Brown, W. R., Corp. 39
Brown Engineering Co. 107
Browning Mfg. Co. 2
Buck Tool Co. 115
Buffalo Bolt Co., Div. of Buffalo-Eclipse Corp. 52
Buffalo Weaving & Belting Co. 91
Bullard, E. D., Co. 6
Burgess-Manning Co. 57
Buschman, E. W., Co. 8
Bussmann Mfg. Co. 78

C

Cabot, Samuel, Inc. 87
Calculagraph Co. 73
Canton Stoker Corp. 56
Carpenter Steel Co. 96
Carter Controls, Inc. 52
Ceilcote Co. 14
Chain Belt Co. 21
Chicago Eye Shield Co. 74
Chicago Hardware Foundry Co. 6
Chicago Wheel & Mfg. Co. .. 63
Chicago-Wilcox Mfg. Co. 60
Chisholm-Moore Hoist Div. .. 9
Cincinnati Lathe & Tool Co. 7
Cincinnati Tool Co., The 68
Clair Mfg. Co. 44
Clark-Cutler-McDermott Co. . 84
Clark Equipment Co. 39
Clarke Sanding Machine Co... 108
Cleveland Cap Screw Co. 88
Cleveland Crane & Engineering Co. 22, 87
Cleveland Tramrail Div., Cleveland Crane & Engineering Co. 22
Cleveland Vibrator Co. 37
Cleveland Worm & Gear Co.. 33
Cling-Surface Co. 40
Clippard Instrument Laboratory, Inc. 69
Coffing Hoist Div. Duff-Norton Co. 92
Coles Cranes, Inc. 29
Colorado Fuel & Iron Corp., Wickwire Spencer Steel Div. 81
Colson Corp. 89
Columbia Electric Mfg. Co.. 95
Columbian Vise & Mfg. Co... 60
Commander Mfg. Co. 10
Conco Engineering Works ... 48
Cone Drive Gears, Div. Michigan Tool Co. 50
Corning Glass Works 101
Consolidated Electrodynamics Corp., Rochester Div. 57
Continental Felt Co. 18
Continental Machine Co. 36
Convoy, Inc. 45
Cool-Amp Co. 48
Coppus Engineering Corp. ... 50
Cover, H. S. 8
Cramer Posture Chair Co. .. 67
Crane Co. 37
Crane Packing Co. 79
Crown Controls Co., Inc. 45
Cullman Wheel Co. 106
Cunningham, M. E., Co. 95
Curran Corp. 22, 87
Curtiss-Wright Corp. 12
Cutler-Hammer, Inc. 14

D

Dake Corp. 80
Dayton Rogers Mfg. Co. 109
Deltronic Corp. 89
DeLuxe Metal Furniture Co... 10
Deming Co. 33
Denison Engineering Co. 58
Detecto Scales, Inc. 87
Detroit Hoist & Machine Co.. 81
Detroit Power Screwdriver Co. 91
Detroit Stamping Co. 98
Detroit Testing Machine Co.. 18
DeVilbiss Co. 49
Diamond Machine Tool Corp.. 116
Dico Co. 35
Diebold, Inc. 80
Dillon, W. C., & Co. 67
Dings Magnetic Separator Co. 89
Dixon Automatic Tool, Inc. .. 53
Dockson Corp. 30
Dodge Mfg. Corp. 94
Doerr Glass Co. 12
Dole Valve Co. 69
Dollinger Corp. 83
Dorr-Oliver, Inc. 98
Dow Corning Corp. 31
Downs Crane & Hoist Co. .. 15
Doyle, J. E., Co. 30
Dravo Corp. 110
Dresser Mfg. Div. 40
Dry Clime Lamp Corp. 54
Duff-Norton Co. 3, 92
duPont de Nemours, E. I., & Co. 51
Durant Mfg. Co. 79
Durkee-Atwood Co. 38
duMont Corp. 97
Duo-Fast 96
Dust Suppression & Engineering Co. 4
Dwyer, F. W., Mfg. Co. 105

E

Eagle Signal Corp. 99
Eastman Kodak Co. 13, 35, 69, 107
Eaton Mfg. Co., Reliance Div. 81
Economy Engineering Co. ... 76
Edmont Mfg. Co. 78
Edmund Scientific Corp. 116
Elastic Stop Nut Corp. of America 32, 99
Electric Controller & Mfg. Co., Div. of Square D Co. 79
Electric Storage Battery Co. 61
Electrolift, Inc. 8
Elgin National Watch Co., Abrasives Div. 56
Elliott Co. 85
Emerson Electric Mfg. Co. .. 85
Enterprise Machine Parts Corp. 30
Equipment Mfg., Inc. 94
Equipto Div., Aurora Equipment Co. 59
Erickson Tool Co. 16
Ettco Tool Co. 96
Euclid Crane & Hoist Co..... 6
Evans Rule Co. 32
Exact Weight Scale Co..... 75
Ex-Cell-O Corp. 59
Exide Industrial Div., Electric Storage Battery Co. 61

F

Fafnir Bearing Co. 31
Fairfield Development Lab., Inc. 36
Farquhar, A. B., Div., Oliver Corp. 97
Farrelloy Co. 116
Farval Corp. 30
Fastener Corp. 96
Fastex Div., Illinois Tool Works 107
Fawick Airflex Div., Fawick Corp. 73
Federal Press Co. 34
Federal Products Corp. 47
Feedall, Inc. 24
Felters Co. 19
Fenwal Inc. 14
Ferguson, Harry J., Co. 35
Ferro Corp. 23, 106
Field, Walter W., & Son, Inc. 91
Fielden Instrument Div. Robertshaw-Fulton Controls Co. 32
Filmsort Div., Dexter Folder Co. 3
Filtros, Inc. 31
Finnell System, Inc. 33
Fischer & Porter Co. 65
FlexAngle Corp. 96
Flexaust Co. 109
Flexo Products, Inc. 72
Flexonics Corp. 60
Flexrock Co. 116
Flightex Fabrics, Inc. 16
Formica Corp. 108
Foley Mfg. Co. 55
Food Machinery & Chemical Corp. 5, 56
Foote Bros. Gear & Machine Corp. 112
Foster, L. B., Co. 110
Fostoria Pressed Steel Corp.. 61
Foxboro Co. 5, 92
Frommelt Industries 99
Fuller Co. 42

G

Galland-Henning Nopak Div.. 51
Gardner-Denver Co. 108
Gardner Machine Co. 56
Garlock Packing Co. 55
Garrett Oil Tools, Inc. 100
Gast Mfg. Corp. 91
Gay-Lee Co. 5
General Plate Div., Metals & Controls Corp. 13
General Radio Co. 42
General Tire & Rubber Co... 33
Genesee Machine Builders, Inc. 80
Gerrard Steel Strapping Div., U.S. Steel Corp. 30
Globe Co., Grip-Strut Div. ... 105
Globe Hoist Co. 95
Globe Imperial Div. of Precision Castings Co. 6
Go-Jer, Inc. 8
Goodrich, B. F., Tire Co., A Div. of The B. F. Goodrich Co. 21
Goodyear Tire & Rubber Co. 39, 49
Gordon, Claud S., Co. 89
Goulds Pumps Inc. 64
Govro-Nelson Co. 43
Granet Corp., The 38
Graphic Systems 33
Graybar Electric Co., Inc.... 9
Greaves Machine Tool Co..... 62
Greenlee Bros. & Co. 8
Greenlee Tool Co. 87
Gries Reproducer Corp. 17
Grieve-Hendry Co. 34
Grip Nut Co. 64
Guardian Electric 72
Gustin-Bacon Mfg. Co. 20

H

Hamilton Tool Co. 13, 15, 17
Hammond Machinery Builders, Inc. 101
Handy & Harman 20
Hansen, A. L., Mfg. Co. 35
Hansen Manufacturing Co. .. 94
Hart, R. E., Mfg. Co. 9
Hause Engineering 81
Heat-Timer Corp., Standard Instrument Corp. Div. 21
Hetherington & Berner, Inc.. 93
Hevi Duty Electric Co. 93
Hewitt-Robins 88
Hobbs Mfg. Co. 42
Hollaender Mfg. Co. 64
Homer Mfg. Co. 10
Hoover Ball & Bearing Co.... 68
Houghton, E. F., & Co. 100
Hunt, C. B., & Son, Inc. ... 78
Hunter Spring Co. 109
Hydraulic Mfg. Co. 62

I

Ideal Industries, Inc. 59
Illinois Testing Laboratories, Inc. 48, 71
Inductotherm Corp. 12
Industrial Filtration Co. 29
Industrial Products Co.....2, 14
Industrial Retaining Ring Co. 15
Industrial Tectonics, Inc. ... 76
Ingersoll-Rand Co. 15, 106
Injection Molders Supply Co.. 63
International Nickel Co. 53
Ironbound Box & Lumber Co. 35
Island Equipment Corp. 84

J

Jabsco Pump Co. 40
Jack & Heintz, Inc. 38
Jaco Devices, Inc. 62
Jeffrey Mfg. Co. 43
Jelliff, C. O., Mfg. Corp. 85
Jenkins Bros. 71
Jergens Tool Specialty Co. .. 60
Johns-Manville Corp., Dutch Brand Div. 81
Johnson Bronze Co. 57
Johnson Mfg. Corp. 59
Jomac Inc. 34
Jones, Howard B., Div., Cinch Mfg. Corp. 60
Joy Mfg. Co. 11

K

Kent Co. 98
Kester Solder Co. 19, 102
Kett Tool Co. 39
Kidde, Walter, & Co. 22, 93
Klaas Machine & Mfg. Co... 114
Krieg, Victor J., Inc. 22

L

L & R Mfg. Co. 98
Labelon Tape Co. 70
Lapeer Mfg. Co. 54
Legge, Walter G., Co., Inc... 9
Leiman Bros., Inc. 77
Lenco, Inc. 49
Leonard Precision Products Co. 20
Lepel High Frequency Laboratories, Inc. 104
Lermer Plastics, Inc. 106
Leslie Co. 10
LeTourneau, R. G., Inc. .. 100
Lewis-Shepard Products, Inc. 66
Lewis Welding & Engr. Corp. 95
Lift Trucks, Inc. 82
Linde Air Products Co., A Div. of Union Carbide & Carbon Corp. 41
Linemaster Switch Corp. 10
Link-Belt Co. 59, 109
Lipe-Rollway Corp. 108
Logan Co. 4
Loomis Machine Co. 115
Lovejoy Flexible Coupling Co. 69
Lucas Milhaupt Engineering Co. 45

M

M B Manufacturing Co. 72
McGill Mfg. Co. 20, 95
MacLean-Fogg Lock Nut Co. 30
Magna-Lock, Inc. 64
Magnetic Tool Corp. 74
Manheim Mfg. & Belting Co. 48
Markal Co. 24
Marsh Instrument Co. 13
Marshalltown Mfg. Co. 35
Marx, Clarence J., Co. 103
Mason-Neilan Div. of Worthington Corp. 24
May-Fran Engineering, Inc. .. 67
Mead Specialties Co. 46
Mercoid Corp. 53
Metals & Controls Corp. .. 13, 45
Metzgar Conveyor Co. 82
Meyercord Co. 23
Meyers, W. F., Co. 36
Micro Balancing, Inc. 105
Micro-Switch, a Div. of Minneapolis-Honeywell Regulator Co. 77
Miller Sewer Equipment, Inc. 3
Miller Sewer Rod Co. 116
Mixing Equipment Co. 47
Modern Machine Tool Co. ... 90
Morris Machine Works 66
Morse Mfg. Co. 48
Mortell, J. W., Co..... 29
Moto-Truc Co. 34
Mueller Brass Co. 70
Multifinish Mfg. Co., Magnetool Div. 73
Multistamp Co. 62

N

Nagle Pumps, Inc. 111
National Acme Co. 31
National Air Sander, Inc. ... 114
National Electric Products ... 16
National Screw & Mfg. Co. .. 71
National Vulcanized Fibre Co. 65
Naylor Pipe Co. 106
New Departure Div. of General Motors Corp. 103
New York Belting & Packing Co. 82
Newage International, Inc. .. 94
Newark Wire Cloth Co. 46
Newcomb-Detroit 50
Niagara Blower Co. 79
Nice Ball Bearing Co. 19
Norgren, C. A., Co. 45
Northwestern Tool & Engineering Co. 82
Norton Co. 102
Nu-Matic Grinders, Inc. 111

O

OPW Corp., Jordan Corp. Div. 24
Ohio Brass Co. 31
Ohio Gear Co. 41
Ohio Nut & Bolt Co. 112
Oil-Rite Corp. 104
Oliver Corp., A. B. Farquhar Div. 97
Olson, Samuel, Mfg. Co., Inc. 12
Onan, D. W., & Sons, Inc... 6
O'Neil-Irwin Mfg. Co. 11
Overbeke-Kain Co. 44
Owatonna Tool Co. 46
Ozalid, A Div. of General Aniline & Film Corp. 13

P

Paasche Airbrush Co. 23
Palley Supply Co. 106
Palmer, Harold L., Co. 42
Palmer Thermometers, Inc. .. 54
Palnut Co. 36
Pangborn Corp. 97
Pannier Corp. 47
Parker Appliance Co. 37, 98
Pasadena Hydraulics Inc. ... 110
Pass & Seymour, Inc. 107
Patton-MacGuyer Co. 96
Patton Mfg. Co., Inc. 57
Peck & Harvey Mfg. Corp. .. 42
Pedrick Tool & Machine Co... 33
Peerless Electric Co. 61
Peerless Wire Goods Co. 74
Penn Engineering & Mfg. Corp. 87
Perfecting Service Co. 17
Pettibone Mulliken Corp. 86
Pfaudler Co. 78
Pike, E. W., & Co. 105
Pine, William S. 34
Pines Engineering Co. 91
Pittsburgh Steel Products Co. 51
Platecoil Div. of Tranter Mfg., Inc. 21
Pneu-Trol Devices, Inc. 46
Portage Double-Quick Tool Co. 52
Porter, H. K., Company, Inc., Quaker Rubber Div. 10
Porter-Cable Machine Co. ... 41
Potdevin Machine Co. 43
Prat-Daniel Corp., Thermobloc Div. 105
Pressed Steel Tank Co. 70
Price, E. L., Pump Co. 14
Protectoseal Co. 108
Punch-Lok Co. 102
Purolator Products, Inc. 97
Pyles Industries, Inc. 4

Q

Quaker Rubber Div., H. K. Porter Company, Inc., of Pittsburgh 10
Quickdraft Co. 92
Quincy Compressor Co. 69

R

R & L Tools 77
Ramsey Corp. 6
Randall Graphite Bearings, Inc. 12
Rankin Bros. Engineering & Sales, Inc. 65
Rauland-Borg Corp. 63
Raymond Corp., The 16, 53, 94, 113
Redi-Bolt, Inc. 93
Reed Manufacturing Co. 66
Reeves Pulley Co. Div. of Reliance Electric & Eng. Co. 10
Republic Mfg. Co. 3
Republic Steel Corp. 86
Research-Cottrell, Inc. 85
Research Products Corp. ..23, 98
Revolvator Co. 99
Richard Brothers Punch Div., Allied Products Corp. 5
Richards-Wilcox Mfg. Co. ... 109
Riehle Testing Machines Div., Amer. Machine & Metals, Inc. 58
Robbins & Myers, Inc. 83
Roberts, Weldon, Rubber Co. 88
Robertshaw-Fulton Controls Co. 32
Rochester Mfg. Co. 53
Rock-Tred Corp. 113
Rockwell Mfg. Co. 7, 97
Rockwell Mfg. Co., Nordstrom Valve Div. 99
Rockwood Sprinkler Co. 38, 61, 89
Rodgers Hydraulic Inc. 66
Roll-A-Reel 90
Roper, Geo. D., Corp. 48
Rotary Lift Co. 78
Roth Rubber Co. 14
Round, David, & Son, Inc. .. 112
Rowe Methods, Inc. 101
Royal Design & Mfg. Inc. .. 5
Ruby Chemical Co. 95
Ruger Cranes 75

S

SKF Industries, Inc. 60, 61
S-P Mfg. Corp. 36, 37
Sabin Machine Co. 18
Saginaw Products Corp. 77
Saginaw Steering Gear Div. of General Motors 43
Sahlin Engineering Co. 73
Salem-Brosius, Inc. 55
Sarco Co., Inc. 63
Scherr, George, Co. 23
Schmidt, Geo. T., Inc. 53
Schrader's, A., Son, Div. of Scovill Mfg. Co., Inc. .. 20, 105
Schutte & Koerting Co. 55
Sellers Injector Corp. 100
Sessions, J. H., & Son 18
Set Screw & Mfg. Co. 104
Severance Tool Industries, Inc. 36
Sexauer, J. A., Mfg. Co. ... 110
Sheffield Corp., The 73
Sheldon Machine Co. 103
Shenango Furnace Co., The.. 21
Shepard Niles Crane & Hoist Corp. 77
Shoe Form Co. 67
Shuford Mills, Inc. 9
Sico Mfg. Co. 70
Signode Steel Strapping Co... 41
Simplicity Engineering Co. .. 80
Sintz, Claud, Inc. 44
Skinner, M. B., Co. 77
Smit, J. K., & Sons, Inc. 9
Snap-On Tools Corp. 82
Snow-Nabstedt Gear Corp. ... 68
Sommer Metalcraft Corp. 71
Soreng Div., Controls Corp. of America 58
South Chester Corp. 49
Southern Screw Co. 111
Spaulding Fibre Co. 92
Speed Selector Inc. 82
Spencer Thermostat Div. Metals & Controls Corp. ... 45
Spray Engineering Co. 66
Spraying Systems Co. 17
Sprout-Waldron & Co. 19, 74
Square D Company ... 31, 54, 86
Square D Co., Electric Controller & Mfg. Co. Div. 79
Stackpole Carbon Co. 90
Standard Conveyor Co. 101

Advertisers Index—Continued

Standard Pressed Steel Co. .. 15, 38, 83, 102
Standard Steel Spring Div., Rockwell Spring & Axle Co. 17
Stanley Works 50
Sta-Warm Electric Co. 15
Stearns Electric Corp. 116
Stearns Magnetic Products, A Div. of Indiana Steel Products Co. 115
Steel City Testing Machines, Inc. 65
Stephens-Adamson Mfg. Co. 38
Sterling Electric Motors 79
Stevens-Burt Co. Div. of The Water Master Co. 13
Sticht, Herman H., Co. 90
Stockvis-Edera & Co., Inc. 65
Storch Products Co., Inc. 3
Sturtevant Mill Co. 66
Sugar Beet Products Co. 56
Superior Pneumatic & Mfg., Inc. 105
Superior Tube Co. 103
Supreme Products Corp. 63
Surety Rubber Co. 74
Sutton Mfg. Corp. 80
Swartwout Co. 40
Synthane Corp. 50

T

Taylor Instrument Companies 32
Thomas & Betts Co. 104
Thomson Industries, Inc. 7
Tinnerman Products, Inc. 91
Tokheim Corp. 20
Toledo Metal Furniture Co., The 41
Tomkins-Johnson Co. 54
Toolset, Inc. 43
Torit Mfg. Co. 50
Towmotor Corp. 103
Townsend Co. 65
Tranter Mfg., Inc., Platecoil Div. 21
Trent, Inc. 67
Trico Fuse Mfg. Co. 23
Triner Scale & Mfg. Co. 89
Trombetta Solenoid Corp. 76
Tru Seal Div., Flick Reedy Corp. 71
Tubular Rivet & Stud Co. 84
Twin Disc Clutch Co. 57
Tyler Mfg. Co. 76

U

Union Carbide & Carbon Corp., Linde Air Products Co. 41
Union Metal Mfg. Co. 60, 61
Union Steel Products Co. 70
Union Switch & Signal Div. of Westinghouse Air Brake Co. 112
U.S. Burke Machine Tool Div. 54
U.S. Gasket Co. 111
U.S. Graphite Co. 24
U.S. Hoffman Machinery Corp. 112
U.S. Industrial Glove Corp. 84
U.S. Safety Service Co. 48
U.S. Steel Corp. 30, 86
U.S. Stoneware Co. 52
U.S. Tool Co. 93
Universal Engineering Co. 15
Up-Right Scaffolds 19

V

Vaco Products Co. 56
Varflex Corp. 11
Veeder Root, Inc. 24
Vernon Devices, Inc. 107

W

W-K-M Mfg. Co., Inc. 96
Waco Mfg. Co. 113
Wales-Strippit Corp. 75
Walker, O. S., Co., Inc. 47
Walker-Turner Div. of Rockwell Mfg. Co. 7
Warner Electric Brake & Clutch Co. 76
Washington Steel Corp. 62
Waterloo Valve Spring Compressor Co. 88
Waterman Engineering Co. 97
Waters Mfg. Inc. 2
Watlow Electric Mfg. Co. 45
Watts Regulator Co. 2
Webb, Jervis B., Co. 7
Weber Marking Systems Div. of Weber Addressing Machine Co. 57
Weckesser Co. 114
Wedge-Wire Corp. 99
Weller Electric Corp. 47
Wells Mfg. Corp. 18
West Bend Equipment Corp. 80
Weston Electrical Instrument Corp., A Subsidiary of Daystrom, Inc. 44
Wheel Trueing Tool Co. 32
Wheeler Insulated Wire Co. 92
White, S. S., Plastics Div. 22, 102
Whitehead Metal Products Co., Inc. 68
Wickwire Spencer Steel Div. 81
Wiegand, Edwin L., Co. 4, 75
Wirth, Carl, & Son, Inc. 21
Wilmad Glass Co. 64
Wilton Tool Mfg. Co. 58
Wing, L. J., Mfg. Co. 11
Winnen Incinerator Co. 51
Winsmith, Inc. 84
Worcester Valve Co., Inc. 8
World Dryer Corp. 29
Wright Hoist Div., Amer. Chain & Cable 18

Y

Yale & Towne Mfg. Co. 7, 58
Yarnall-Waring Co. 40

Z

Zaco Laboratories 56
Zagar, Inc. 2

Index to Products

A

Abrasive Products 1, 9, 53, 88, 98, 102, 105, 106
Adhesives 39, 51
Air Conditioning 68
Alarms 93
Alloys 70, 103, 111
Aluminum 104, 116

B

Balancing Equipment 68, 105
Balls 76, 96
Bearings 1, 7, 12, 19, 31, 43, 57, 60, 61, 68, 95, 103, 105
Belt Treatment 40
Belting 48, 82, 104
Benders 4, 11, 18, 33, 87, 91
Bins & Boxes 45, 51, 52, 55, 59, 62, 67, 88, 96
Bolts 52, 111
Boots 69
Boring Equipment 8, 111
Brakes 1, 76, 116
Brazing Equipment & Materials 20, 46, 78
Broaching Equipment 97
Brushes, Electrical 24
Buckets, Elevating 109
Building Materials 101
Burners, Oil & Gas 50
Bushings 12, 58, 87, 102
Bushings, Drill 16, 104

C

Cams & Followers 95
Car Spotters 38
Cases & Chests 88
Casters
33, 44, 76, 83, 92, 94, 102, 108
Castings 21, 98
Chairs & Stools 37, 41, 67
Chucks 115
Clamping Devices 1, 54, 58, 68, 91, 98, 102
Clamps, Lifting 6, 53, 110
Cleaners, Air 2, 5, 6, 39, 79, 83, 90
Cleaners, Drain 3, 13, 62, 71, 116
Cleaners, Vacuum 51, 58, 59, 98, 116
Cleaning Equipment, Blast 82, 97, 100
Cleaning Machines 7, 61, 80, 98, 101
Cleaning Materials 8, 22, 33, 56, 83, 87, 91, 99, 111
Clutches 1, 47, 73, 76, 106, 112, 116
Coatings, Protective 14, 43, 82, 103, 104, 105, 107, 111
Collets 16
Communications Equipment 63, 92
Compressors 69, 106
Condensate Return System 84
Condensation Preventive 29
Conduit 40
Contacts, Electric 13, 99
Controls, Air & Hydraulic 2, 72, 85, 97, 105
Controls, Edge Position 84
Controls, Electric 10, 12, 14, 31, 38, 42, 43, 46, 50, 54, 55, 58, 59, 60, 62, 76, 90, 96, 100, 102
Controls, Level 32, 88
Controls, Pressure & Temperature 5, 10, 13, 14, 24, 29, 35, 37, 41, 45, 46, 49, 53, 63, 65, 69, 86, 100
Controls, Production 5, 33, 73, 96
Controls, Proximity 37, 53
Controls, Remote 61, 85, 89, 93, 112
Conveyor Accessories 4, 11, 21, 38, 43
Conveyors 7, 8, 12, 35, 56, 67, 82, 84, 97, 101
Counting Devices 9, 24, 42, 79, 112
Couplings, Flexible 59, 112
Crane Accessories 47, 86, 104, 106
Cranes 29, 48, 75, 86, 100
Cutters, Metal 79
Cutters, Sheet 55
Cutting Equipment, Gas 37
Cutoff Machines 2, 36
Cylinders, Air & Hydraulic 5, 18, 36, 37, 46, 51, 52, 54, 69, 106

D

Deburring Equipment 20, 36, 107
Dies & Accessories 18, 31, 60, 100, 109
Dock Covers 99
Dockboards & Ramps 78, 95, 101, 115
Door Operators 100
Doors, Industrial 109
Draft Inducers 92
Drafting Equipment 3, 8, 49, 67, 73, 102
Drill Heads, Adjustable 2, 96
Drilling Machines 13, 32, 43, 45, 74, 77, 81, 84
Drills 34, 56
Drills, Masonry 32, 68
Drives, Machine 22, 57, 68, 102
Drives, Variable Speed 2, 10, 21, 33, 44, 51, 69, 82
Dryers, Hand 6, 29
Drying Equipment 5, 79, 108
Ducts 109
Dust Collectors 4, 7, 17, 50, 85, 90, 98, 101

E

Electric Plants 30
Electronic Equipment 17, 33, 83, 91, 112
Elevating Equipment 17, 53, 66, 76, 78, 80, 91, 92, 94
Engines, Industrial 6, 18
Exhausters 92
Expanders, Tube 85

F

Fabricating Equipment 7, 11, 20, 36, 91
Fabrics 16, 103
Fans & Blowers 5, 22, 55, 59, 80, 85
Fasteners, Belt 20
Fastening Devices 6, 13, 15, 17, 20, 39, 32, 36, 38, 48, 49, 52, 64, 65, 71, 81, 83, 84, 88, 102, 104, 107, 108, 111, 112, 113, 114
Faucet Repairs 110
Feeders 10, 16, 18, 24, 73, 89, 91, 93, 108, 110
Felt Products 18
Filtering Equipment 2, 11, 29, 31, 83, 90, 97, 112
Finishing Equipment 23, 44, 58, 98, 102
Fire Extinguishing Equipment 22, 61
Floor Machines 75, 106, 108
Flooring Materials 17, 33, 105, 109, 110, 113, 116
Furnaces, Industrial 12, 93
Fuses 78

G

Gages, Precision 6, 23, 32, 44, 47, 48, 64, 66, 73, 80, 89, 92
Gages, Pressure & Temperature 13, 57, 75, 81, 105, 109
Gearing 41, 62, 112
Glass Products 12, 61, 101
Gloves, Industrial 34, 38, 74, 78, 84
Goggles 19, 74
Grating 17, 105
7, 50, 56, 65, 73, 85, 90, 111
Grinding Equipment 1, 7, 50, 56, 65, 73, 85, 90, 111

H

Hammers & Mallets 18, 90
Hardware 18, 63, 81, 92, 109
Heat Exchangers 21, 78, 88
Heat Treating Equipment 94
Heaters, Compound 6, 15
Heaters, Electric 4, 42, 45, 47, 52, 67, 71, 75
Heaters, Electronic & Induction 22, 94, 104
Heaters, Unit 9, 11, 105, 110
Hoists 6, 8, 9, 18, 46, 74, 77, 81, 92, 106, 112
Holloware, Fiber 92
Hose & Fittings 10, 17, 20, 24, 60, 78, 94, 98, 102
Humidifiers 23, 88

I

Incinerators 10, 51
Indicators, Flow 89
Indicators, Pressure & Temperature 71, 89
Inspection Equipment 3, 12, 24, 36, 56, 69, 105, 106, 108, 116
Instruments, Electric 49, 72, 92
Insulation, Electric 11, 107, 111, 116
Insulation, Thermal 20

J

Jacks 3, 69
Jacks, Leveling 15, 30
Jigs & Fixtures 60

K

Knobs 21, 106

L

Labels & Nameplates 18, 23, 57, 70, 81, 97, 101
Laboratory Equipment 76, 82, 94
Ladders 29
Laminated Materials 50, 98, 108
Lapping Machines 59
Lighting Equipment 11, 12, 14, 15, 39, 50, 61, 108
Lockers & Shelving 10, 86, 87, 96
Lubricating Equipment & Materials 1, 2, 14, 23, 30, 54, 87, 88, 104, 109

M

Machine Tool Accessories 52, 87, 90, 91, 111
Machine Tools 7, 15, 54, 73, 81, 93, 103, 104
Magnetic Equipment 3, 10, 35, 49, 64, 73, 79, 89, 97, 115
Marking Equipment 3, 24, 34, 39, 45, 47, 53, 57, 59, 62, 67, 86, 95, 108
Materials Handling Equipment 1, 15, 16, 17, 23, 33, 35, 38, 45, 48 51, 52, 53, 55, 57, 60, 61, 65, 69, 70, 79, 80, 88, 89, 92, 94, 110
Materials Handling, Overhead 22
Meters, Flow 55, 93, 97
Meters, Tong Test 95
Mills 56, 102
Mixing Equipment 4, 47, 66, 74, 104
Models 110
Mold Release 63
Motors, Electric 1, 3, 4, 29, 38, 39, 55, 61, 73, 77, 79, 94, 96, 99, 110

N

Notchers 57
Nozzles, Spray 17, 66

O

Office Equipment 3, 10, 23, 62, 70, 80, 92, 101
Ovens, Industrial 34, 50, 54, 61, 80, 110

P

Packaging Equipment & Materials 9, 14, 32, 41, 54, 67, 81, 88, 98, 106, 108
Packings & Gaskets 60, 77, 109
Parts, Deep Drawn 70
Parts, Precision 17, 100, 112
Photographic Equipment 107
Pipe & Fittings 6, 8, 22, 40, 42, 51, 64, 71, 77, 82, 89, 106, 110, 111
Pipe & Thread Compounds 79, 96
Pipe Tools & Machines 2, 60, 66, 68
Plastics 51, 84, 94, 96, 98, 102, 106, 107, 108
Plating Equipment 48, 68, 95, 104
Plugs & Caps 22
Power Units, Electric 42
Power Units, Hydraulic 34
Presses 34, 50, 58, 66, 77, 80, 87, 90, 103, 110, 114, 116
Presses, Molding 9, 44, 95, 103, 110
Process Equipment 20, 110
Projectors 4, 13
Pullers 9, 57
Pulleys & Sheaves 2, 8, 10, 69, 82, 100
Pumps
5, 9, 14, 20, 33, 34, 38, 40, 47, 48, 56, 66, 83, 98, 108, 111
Pumps, Air & Vacuum 77, 91, 98, 106
Punches 5, 43, 75
Punch Press Sets 52

R

Racks 64, 66, 94, 96, 102, 107
Recorders, Industrial 21
Reels, Cord 41
Reels, Hose 43
Reels, Stock 40, 62, 75, 76, 90
Refractories 106
Refrigeration Equipment 55
Relays 15, 44, 53, 72, 83, 86, 99
Reproduction Equipment & Materials 13, 32, 35, 37, 42, 86, 87, 96, 100
Resistors 21, 30, 71, 86
Respirators 8, 61, 72
Rod, Threaded 44, 93
Rollers 45
Rubber Products 91
Rubber, Synthetic 14, 31, 100, 113
Rules, Tape 32
Rust Preventives 100

S

Safety Equipment 2, 6, 9, 14, 17, 48, 61, 65, 81, 93, 104, 105, 108
Saw Blades 36, 39, 70, 76, 108
Saws, Metal & Wood 5, 18, 22, 39, 41, 59
Scaffolding 19, 64, 76, 79, 113
Scales 75, 87, 89
Screens 99
Screwdrivers 1, 45, 56
Screwdrivers, Power 91
Screws 38, 111, 114
Seals & Sealants 1, 4, 6, 20, 37, 38, 55, 71
Sharpeners, Saw 55
Shears 35, 61, 66, 93
Shims 60, 108
Shop Equipment 29, 55, 59, 63, 74, 80, 96, 97, 102
Sifters 19
Signals 79, 110
Silicones 63, 110
Sleeves 69
Slitters & Rewinders 72, 75
Snow Removal 46
Snubbers, Exhaust 57
Soldering Equipment & Materials 19, 47, 54, 59, 95, 102, 113, 116
Solenoids 58, 76
Speed Reducers 38, 50, 62, 84, 94, 101
Spray Equipment 17, 66
Springs 18, 58, 104
Sprockets 85, 106, 113
Stampings 96
Stapling Equipment 17, 35, 96
Static Preventive 30
Steel 62, 96
Step Block & Clamp Sets 52
Stitchers, Wire 98
Straighteners 93
Strapping, Steel 30
Strippers 5
Sweepers, Floor 73, 89

T

T-Nuts & Studs 52
Tables 70
Tachometers 19, 56, 90, 103
Tackers 35, 96
Tape, Industrial 9, 70, 81
Tapping Attachments & Equipment 10, 31, 43, 63, 81, 107
Television, Industrial 11, 94, 102
Testing Equipment 2, 18, 23, 36, 41, 43, 48, 58, 62, 65, 67, 69, 70, 93, 106, 109, 110
Thermometers 32, 38, 53, 54
Timing Devices 21, 35, 73
Tires, Industrial 21, 33, 49
Tools, Cleaning 11
Tools, Cutting 21, 23, 31, 36, 56, 78, 98, 102, 112
Tools, Diamond 9, 33
Tools, Hand 18, 34, 68
Tools, Pneumatic 1, 9, 15, 72, 105, 108, 114
Tools, Portable Electric 1, 22, 24, 41, 60, 63, 65, 66, 104
Torches 41, 63
Track & Accessories 110
Tractors, Industrial 10, 56, 72, 82
Transformers 58
Traps, Air & Steam 12, 40, 76
Trolleys 7, 112
Trucks, Hand 16, 35, 45, 89
Trucks, Industrial Power 7, 34, 37, 39, 40, 53, 58, 63, 66, 70, 76, 92, 99, 100, 103, 113
Tubing & Fittings 49, 52, 94, 103, 109, 112, 113, 116

U

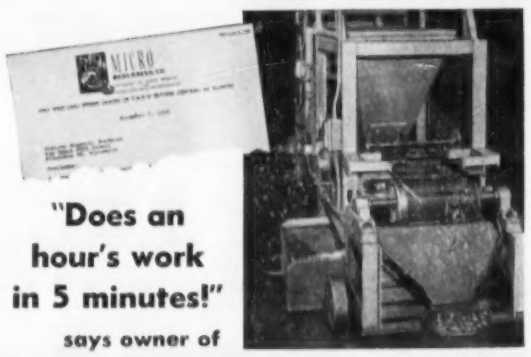
Ultrasonic Equipment 12, 30, 59, 66

V

Vacuum Equipment 84
Valves 3, 8, 12, 31, 34, 38, 42, 46, 50, 62, 68, 71, 72, 99, 100, 106
Vending Machines 67
Ventilating Equipment 1, 40, 42, 83
Vibration Absorbers 19, 30, 72, 88
Vibrators 37
Vises 6, 24, 39, 64, 66, 91

W

Wardrobe Equipment 8
Washers 60, 81
Washroom Equipment 6, 13, 29, 56, 71
Water Treatment 36
Way-Protectors 69
Welding Equipment 19, 30, 31, 41, 49, 53, 72, 74, 75, 78, 79, 91, 113
Wheels, Industrial 5, 19, 35, 51, 77
Winches 38
Winding Equipment 42, 80
Wire 108
Wire Cloth & Screen 46, 68, 85
Wire, Electric 107
Wire Specialties 71, 74
Wiring Devices 13, 16, 20, 57, 60, 67, 95, 96, 99, 104, 107
Workbenches & Tops 44, 102
Wrenches 11, 48, 82



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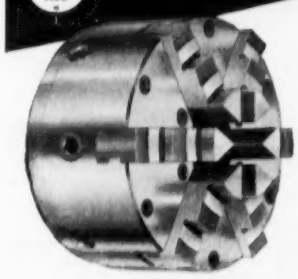

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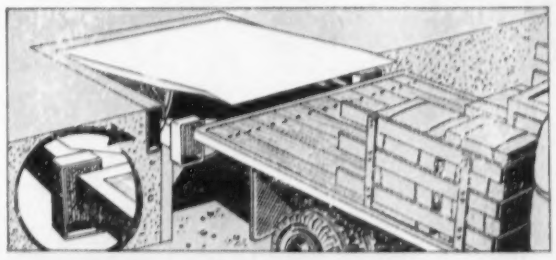

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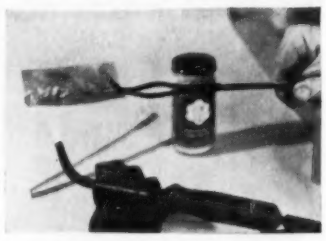

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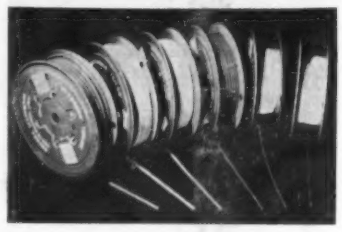

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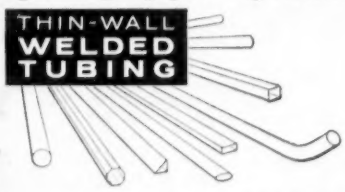

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